

California Public Employees' Retirement System

State Actuarial Valuation

as of June 30, 2024

Required Contributions for Fiscal Year

July 1, 2025 — June 30, 2026

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Actuarial Certification



July 2025

To the best of our knowledge, this report is complete and accurate and contains sufficient information to disclose, fully and fairly, the funded condition of the State plans and satisfies the actuarial valuation requirements of Government Code section 7504. This valuation is based on the member and financial data as of June 30, 2024 provided by the various CalPERS databases and the benefits under these plans with CalPERS as of the date this report was produced. It is our opinion that the valuation has been performed in accordance with generally accepted actuarial principles, in accordance with the Standards of Practice prescribed by the Actuarial Standards Board, and that the assumptions and methods, as recommended by the Chief Actuary and adopted by the CalPERS Board of Administration, are internally consistent and reasonable for these plans.

The undersigned are actuaries who satisfy the *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* of the American Academy of Actuaries with regard to pensions.

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Highlights and Executive Summary

Introduction

This report presents the results of the June 30, 2024, actuarial valuation of the State plans of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the minimum required employer contributions for fiscal year (FY) 2025-26.

The five plans included in this valuation provide retirement benefits to members employed by the State of California. This includes employees of the California State University system but generally does not include employees of the University of California system. It also does not cover school employees or employees of local governments that have elected to contract with CalPERS.

Purpose

This actuarial valuation was performed by the CalPERS Actuarial Office using data as of June 30, 2024. The purpose of the report is to:

- Set forth the assets and accrued liabilities of the State plans as of June 30, 2024.
- Determine the minimum required employer contribution rates of these plans for the FY July 1, 2025 through June 30, 2026.
- Determine the required member contribution rate for FY July 1, 2025, through June 30, 2026, for certain employee groups.
- Provide actuarial information as of June 30, 2024 to the CalPERS Board of Administration (board) and other interested parties.

The pension funding information presented in this report should not be used in financial reports subject to Governmental Accounting Standards Board (GASB) Statement Number 68 for an Agent Employer Defined Benefit Pension Plan. A separate accounting valuation report for such purposes will be provided by CalPERS.

The measurements shown in this actuarial valuation may not be appropriate for other purposes. The State should contact the state actuaries before disseminating any portion of this report for any reason that is not explicitly described above.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; changes in actuarial policies; changes in plan provisions or applicable law; and differences between the required contributions determined by the valuation and the actual contributions made by the State.

Assessment and Disclosure of Risk

This report includes the following risk disclosures consistent with the guidance of the Actuarial Standards of Practice:

- A "Sensitivity Analysis," showing the impact on current valuation results using alternative discount rates of 5.8% and 7.8%.
- A "Sensitivity Analysis," showing the impact on current valuation results assuming rates of mortality are 10% lower or 10% higher than our current post-retirement mortality assumptions adopted in 2021.
- Plan maturity measures indicating how sensitive a plan may be to the risks noted above.
- A low-default-risk obligation measure (LDRM) of benefit costs accrued as of the valuation date.

Highlights and Executive Summary

Required Employer Contribution Rates

The actuarially required employer contribution rates for FY July 1, 2025 through June 30, 2026 are shown in the table below. For comparison purposes, the corresponding contribution rates for FY July 1, 2024 through June 30, 2025 are also provided. The contribution amounts that these rates are expected to generate are also shown.

Plan	Fiscal Year 2024-25		Fiscal Year 2025-26	
	Expected Employer Contribution	Required Employer Rate ¹	Expected Employer Contribution	Required Employer Rate ¹
State Miscellaneous	\$5,122,933,617	31.39%	\$5,515,455,089	31.32%
State Industrial	178,276,087	20.18%	193,465,754	20.54%
State Safety	564,510,090	22.03%	618,674,787	21.67%
State Peace Officers & Firefighters	2,063,718,698	48.09%	2,213,817,187	49.36%
California Highway Patrol	686,478,187	69.89%	742,765,986	69.29%
Total State	\$8,615,916,679		\$9,284,178,803	

¹ Excludes additional contributions pursuant to Government Code section 20683.2. See "Additional Contributions" section on page 7 for more information.

The expected employer contribution dollar amounts shown above are calculated prior to the contribution year and should not be used for financial disclosure purposes. These amounts should not be confused with the Actuarially Determined Contributions, which are calculated after the contribution year and disclosed in the CalPERS GASB 68 accounting reports.

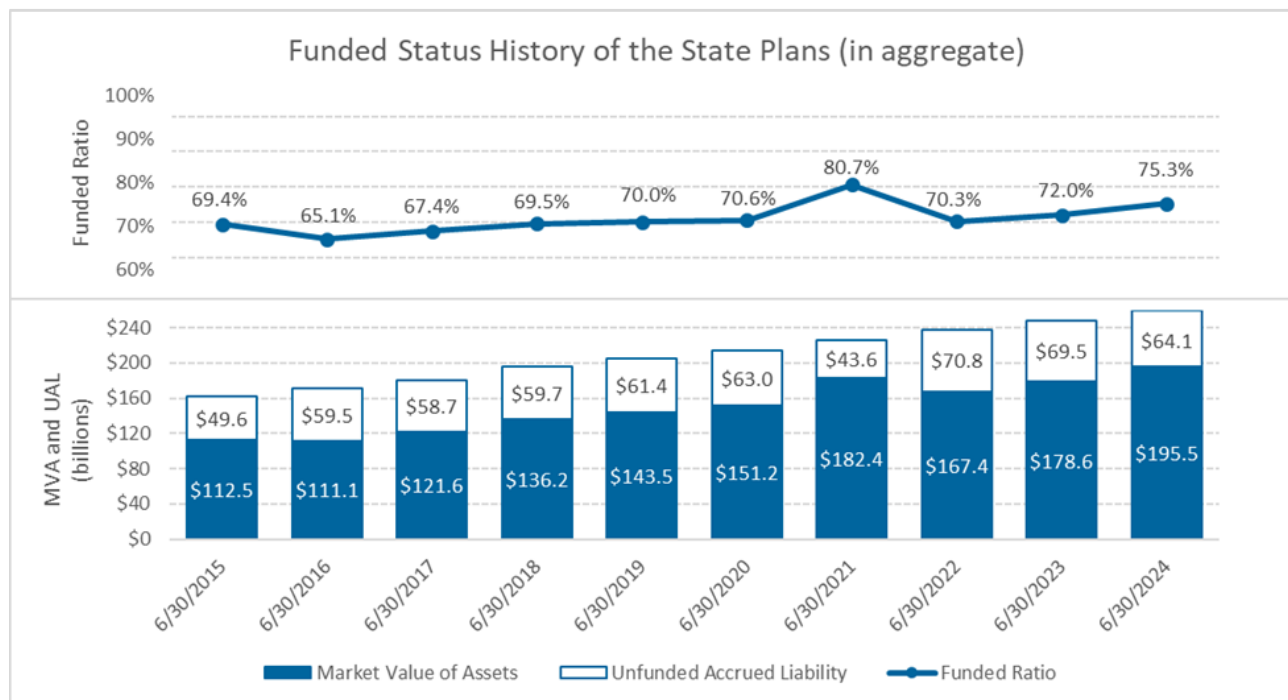
The payroll used to calculate the expected dollar contribution is payroll reported for the fiscal year ending on the valuation date projected forward two years using the annual payroll growth assumption in effect on the valuation date. For example, expected FY 2025-26 contributions are based on FY 2023-24 reported payroll increased by 2.8% per year for two years. Actual contribution amounts will be based on actual payroll during the associated fiscal year and will differ from the expected contributions shown in the table above. State Miscellaneous and State Industrial include both Tier 1 and Tier 2 benefit levels.

The supporting exhibits titled [Reconciliation of Employer Contribution Rates](#) and [Reconciliation of Employer Contribution Amounts](#) in the Liabilities and Employer Contributions section of this report explain the changes in required contribution rates and expected contribution amounts from FY 2024-25 to FY 2025-26.

Highlights and Executive Summary

Funded Status

The Unfunded Accrued Liability (UAL) and funded ratio are assessments of the need for future employer contributions based on the actuarial cost method used to fund the plan. The UAL is the accrued liability minus the assets, while the funded ratio is the assets divided by the accrued liability. The UAL is the present value of future employer contributions for service that has already been earned and is in addition to future normal cost contributions for active members. The funded ratio, on the other hand, is a relative measure of funded status that allows for comparison between plans of different sizes. From June 30, 2023, to June 30, 2024 the aggregated funded ratio for the State plans increased by approximately 3.3%.



Unfunded Liability and Funded Status on June 30, 2024

Plan	Present Value of Benefits	Entry Age Normal Accrued Liability	Market Value of Assets	Unfunded Liability	Funded Status
State Miscellaneous	\$174,418,794,863	\$147,734,205,605	\$110,024,359,962	\$37,709,845,643	74.5%
State Industrial	8,115,641,978	6,568,807,317	5,390,225,901	1,178,581,416	82.1%
State Safety	24,680,982,817	19,668,665,673	16,496,072,930	3,172,592,743	83.9%
State Peace Officers & Firefighters	78,940,072,149	67,057,990,866	50,754,631,593	16,303,359,273	75.7%
California Highway Patrol	21,420,926,050	18,519,420,631	12,823,008,849	5,696,411,782	69.2%
Total for the State	\$307,576,417,857	\$259,549,090,092	\$195,488,299,235	\$64,060,790,857	75.3%

Funded Status History

Plan	June 30, 2020	June 30, 2021	June 30, 2022	June 30, 2023	June 30, 2024
State Miscellaneous	69.8%	79.8%	69.7%	71.2%	74.5%
State Industrial	78.1%	89.2%	77.3%	78.9%	82.1%
State Safety	79.8%	91.2%	78.9%	80.3%	83.9%
State Peace Officers & Firefighters	70.8%	80.3%	69.5%	72.1%	75.7%
California Highway Patrol	64.3%	75.4%	66.2%	66.9%	69.2%
Total for the State	70.6%	80.7%	70.3%	72.0%	75.3%

Highlights and Executive Summary

Changes Since the Prior Year's Valuation

Overall, the required contributions for the State plans increased by \$668 million between FY 2024-25 and 2025-26, a 7.8% relative increase. The table below highlights major contributors to the change in required contributions.

Reason for Change	Change in Required Contribution (in millions)
Change due to progression of existing amortization bases	\$430.1
Effect due to change in overall payroll	224.6
Decrease in normal cost due to new demographics	(43.3)
Decrease due to change in member contribution rates	(4.7)
Decrease due to Budget Act Additional Contributions	(21.2)
Increase due to recharacterization of FY 2023-24 supplemental payment per the Budget Act	175.4
First installment of the 20-year amortization of the following sources of experience gains and losses:	
• Investment experience (reflects five-year ramp)	(109.4)
• Demographic experience	16.7
Total Change in Required Contributions	\$668.3

Key changes are discussed in detail below.

Assumptions and Methods

There have been no assumption or method changes since the prior valuation. A complete description of the actuarial methods and assumptions used in this valuation can be found in Appendix A of this report.

Plan Provisions

No changes were made since the prior valuation. See Appendix B for a summary of the plan provisions used in this valuation.

New Disclosure Items

No new disclosure items were included since the prior valuation.

Board Policy

On April 16, 2024, the board took action to modify the Funding Risk Mitigation Policy to remove the automatic change to the discount rate when the investment return exceeds various thresholds. Rather than an automatic change to the discount rate, a board discussion would be placed on the calendar. The 95th percentile return in the Future Investment Return scenarios that will be published with the projections circular letter is high enough to trigger a board discussion but no change in the discount rate will be reflected.

Plan Experience

On July 15, 2024, CalPERS reported a preliminary net return of 9.3%, before reduction for administrative expenses, for the year ending June 30, 2024. This return was approximately 2.5% higher than the assumed rate of return of 6.8% resulting in an investment gain. This gain will be amortized over 20 years with a 5-year ramp up in the amortization schedule, meaning that the investment gain will result in contribution rate decreases in this valuation as well as the next four.

Payroll across the State plans increased by 7.7%, compared to the payroll growth assumption of 2.80%, resulting in an increase of \$224.6 million in the required contribution for FY 2025-26. The change in payroll for the year ranges from a 4.5% increase for State Peace Officers and Firefighters to a 11.4% increase for State Safety.

The California Public Employees' Pension Reform Act of 2013 (PEPRA) requires lower benefits for new members as defined by PEPRA who are hired on or after January 1, 2013. The normal cost for all the plans is lower due to the enrollment of new hires into lower benefit levels. PEPRA membership ranges from a high of 60% of active members (54% of payroll) for State Safety to a low of 40% of active members (35% of payroll) for California Highway Patrol.

The plans in aggregate experienced a non-investment loss due to demographic sources and a gain due to actual contributions being greater than expected. The net effect was a non-investment experience loss that will be amortized over 20 years beginning in 2025-26.

Highlights and Executive Summary

Additional Contributions

Every year since FY 2013-14, the State employer contribution rates in the annual Budget Act have exceeded the actuarially required contribution rates adopted by the board. Although the additional amounts arose at different times and through different processes, there is a common goal, which is to reduce the State's unfunded liability and create long-term savings.

One of the provisions of pension reform added Government Code section 20683.2, which changed the contribution rates of many State members effective July 1, 2013, July 1, 2014, and July 1, 2015. Government Code section 20683.2 also stipulates that "savings realized by the state employer as a result of the employee contribution rate increases required by this section shall be allocated to any unfunded liability, subject to appropriation in the annual Budget Act." Under the California Constitution, the board has plenary authority over the actuarial function at CalPERS consistent with the fiduciary duties of a trustee. This includes authority to set employer contribution rates. By statute, the State may pay additional contributions in addition to the actuarially required contribution rates set by the board and CalPERS will generally accept these payments.

In all cases, the savings are less than the actual increase in member contributions. This is because the additional member contributions increase the value of the benefit in some circumstances. One example is when a member terminates and takes a refund of his/her accumulated contributions with interest. Another example is Tier 2 members, who are assumed to elect to convert to a Tier 1 benefit with an actuarial equivalent reduction to offset missed Tier 1 contributions; because the members will make additional contributions, a smaller reduction will apply in the future.

In 2014, California voters passed Proposition 2, which amended the State Constitution to require certain funds be appropriated to repay specific State debts, including unfunded liabilities for state-level pension plans. Payments totaling \$337 million were made on July 26, 2024 and are reflected in the amortization schedules and the projections in this report but do not reduce FY 2025-26 contributions. The impact of these payments can be found in the Subsequent Events and Appendix E.

The table below shows the actuarially required contribution rate (adopted by the board based on actuarial valuation results), the additional contributions under Government Code section 20683.2 and the resulting total contribution rate for FY 2025-26 to be paid by the State for each plan.

Plan	Actuarially Required Employer Contribution Fiscal Year 2025-26	Additional Statutory Contribution per GC §20683.2	Total Contribution Fiscal Year 2025-26
State Miscellaneous	31.32%	0.10%	31.42%
State Industrial	20.54%	0.88%	21.42%
State Safety	21.67%	1.18%	22.85%
State Peace Officers & Firefighters	49.36%	1.65%	51.01%
California Highway Patrol	69.29%	1.32%	70.61%

The rates and information shown in the remainder of this report reflect the rates set by the board at its April 2025 meeting (shown above as the actuarially required employer contribution). The additional contribution pursuant to Government Code section 20683.2 will be applied to the unfunded liability.

Highlights and Executive Summary

Subsequent Events

This actuarial valuation report reflects statutory and regulatory changes and fund investment return through July 2024 and board actions through April 2025.

On July 26, 2024, the State contributed a supplemental pension payment of \$337 million under Government Code section 20825.14. In accordance with the statute, the funds were applied to the State rate plans as shown below.

Plan	Supplemental Pension Payments
	Made on July 26, 2024 Pursuant to Proposition 2 (thousands)
State Miscellaneous	\$180,098
State Industrial	9,125
State Safety	21,167
State Peace Officers & Firefighters	126,610
California Highway Patrol	<u>0</u>
Total	\$337,000

CalPERS will be completing an Asset Liability Management (ALM) review process in November 2025 that will review the capital market assumptions and the CalPERS Total Fund Investment Policy and ascertain whether a change in the discount rate is warranted. In addition, the Actuarial Office will be presenting the findings of its Experience Study which reviews economic assumptions other than the discount rate as well as all demographic assumptions and makes recommendations to modify actuarial assumptions where appropriate. Any changes in actuarial assumptions will be reflected in the June 30, 2025, actuarial valuation.

The 2024 annual benefit limit under Internal Revenue Code (IRC) section 415(b) and annual compensation limits under IRC section 401(a)(17) and Government Code section 7522.10 were used for this valuation and are assumed to increase 2.3% per year based on the price inflation assumption. The actual 2025 limits, determined in October 2024, are not reflected.

To the best of our knowledge, there have been no other subsequent events that could materially affect current or future certifications rendered in this report.

Highlights and Executive Summary

Projected Employer Contribution Rates

The following table illustrates projected actuarially required employer contribution rates for the next five fiscal years. Projected results reflect asset and liability information as of the valuation date, June 30, 2024. Projected rates assume all actuarial assumptions will be realized, including the investment return of 6.80% per year beyond June 30, 2024, and no changes to assumptions, methods, or benefits will occur during the projection period. Projected rates further reflect member rate changes known to date and the estimated decrease in normal cost due to new hires entering lower cost benefit formulas. Projections are, by their nature, not a guarantee of future results. Actual contributions rates will differ, perhaps significantly, from the projections below. The actual long-term cost of the plan will depend on the actual benefits and expenses paid from the fund and the actual investment experience of the fund.

Rates do not include the additional contributions pursuant to G.C. section 20683.2

The actual investment return for FY 2024-25 was not known at the time this report was prepared. Projected rates assume all actuarial assumptions will be realized, including the investment return of 6.8% per year beyond June 30, 2024. Updated projections will be provided in a circular letter in August 2025 after preliminary return figures for FY 2024-25 are available. The circular letter will also include a "scenario test" projecting contribution rates under various investment income returns.

Plan	Actual	Projected Future Employer Contribution Rates				
	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31
State Miscellaneous	31.32%	31.2%	32.6%	32.2%	31.7%	31.5%
State Industrial	20.54%	20.4%	21.6%	21.2%	20.7%	20.5%
State Safety	21.67%	21.5%	22.7%	22.2%	21.7%	21.5%
State Peace Officers & Firefighters	49.36%	48.9%	51.1%	50.1%	48.9%	48.4%
California Highway Patrol	69.29%	67.0%	69.3%	67.9%	68.7%	66.0%

Under the amortization policy in effect for this valuation, changes in the Unfunded Accrued Liability (UAL) due to investment gains or losses (return relative to the prevailing assumption, currently 6.8%) are amortized using a five-year ramp up. For more information, please see "Amortization of the Unfunded Actuarial Accrued Liability" under "Actuarial Methods" in Appendix A. This method attempts to mitigate employer cost volatility from year to year by phasing in the impact of investment experience over a five-year period. As a result of this methodology, dramatic changes in the required employer contributions in any one year are less likely. However, required contributions can change gradually and significantly over the next five years. In years when there is poor investment return, the relatively small amortization payments during the ramp-up period could result in a funded ratio that is projected to decrease initially while the contribution impact of the investment loss is phased in.

Assets

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Reconciliation of Market Value of Assets

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
1) Market Value of Assets as of June 30, 2023 Including Receivables for Tier 1 Conversion and Service Buybacks	\$101,088,491,055	\$4,908,182,724	\$14,875,485,155	\$46,091,266,637	\$11,683,147,992
2) Receivables for Tier 1 Conversion and Service Buybacks as of June 30, 2023	140,796,723	9,855,207	8,436,119	39,680,857	6,221,026
3) Market Value of Assets as of June 30, 2023 [(1) - (2)]	\$100,947,694,332	\$4,898,327,517	\$14,867,049,036	\$46,051,585,780	\$11,676,926,966
4) Employer Contributions Received in 2023- 24	6,093,536,399	231,104,161	784,227,356	2,877,619,963	755,384,602
5) Employee Contributions Received in 2023- 24	1,246,381,264	76,780,780	319,388,155	510,429,054	133,050,970
6) Benefit Payments in 2023- 24	(7,858,218,844)	(288,051,118)	(892,192,750)	(3,130,879,860)	(850,170,500)
7) Refunds in 2023- 24	(52,191,794)	(3,128,669)	(24,658,977)	(17,976,829)	(1,178,342)
8) Transfers In/(Out)	(480,455)	(1,172,463)	1,761,466	(284,634)	176,087
9) SCP Payment and Interest	40,554,296	2,558,725	2,992,146	12,594,363	2,580,628
10) Miscellaneous Adjustments	6	(6)	0	0	0
11) Investment Return (Net of Investment Expenses)	9,557,630,413	469,691,832	1,440,926,137	4,451,317,354	1,109,344,806
12) Administrative Expense	(73,956,670)	(3,594,787)	(10,899,822)	(33,791,613)	(8,551,425)
13) Market Value of Assets as of June 30, 2024 [(3) + (4) + (5) + (6) + (7) + (8) + (9) + (10) + (11) + (12)]	\$109,900,948,947	\$5,382,515,972	\$16,488,592,746	\$50,720,613,578	\$12,817,563,791
14) Receivables for Tier 1 Conversion and Service Buybacks as of June 30, 2024	123,411,015	7,709,930	7,480,184	34,018,016	5,445,058
15) Market Value of Assets as of June 30, 2024 Including Receivables for Tier 1 Conversion and Service Buybacks	\$110,024,359,962	\$5,390,225,901	\$16,496,072,930	\$50,754,631,593	\$12,823,008,849

Asset Allocation

CalPERS adheres to an Asset Allocation Strategy which establishes asset class allocation policy targets and ranges and manages those asset class allocations within their policy ranges. CalPERS Investment Belief No. 6 recognizes that strategic asset allocation is the dominant determinant of portfolio risk and return.

The asset allocation shown below reflects the allocation of the Public Employees' Retirement Fund (PERF) in its entirety. The assets of the State plans are part of the PERF and are invested accordingly.

On March 20, 2024, the board adopted changes to the strategic asset allocation. The new allocation was effective July 1, 2024. The asset allocation as of June 30, 2024, is shown below, along with the strategic asset allocation targets.

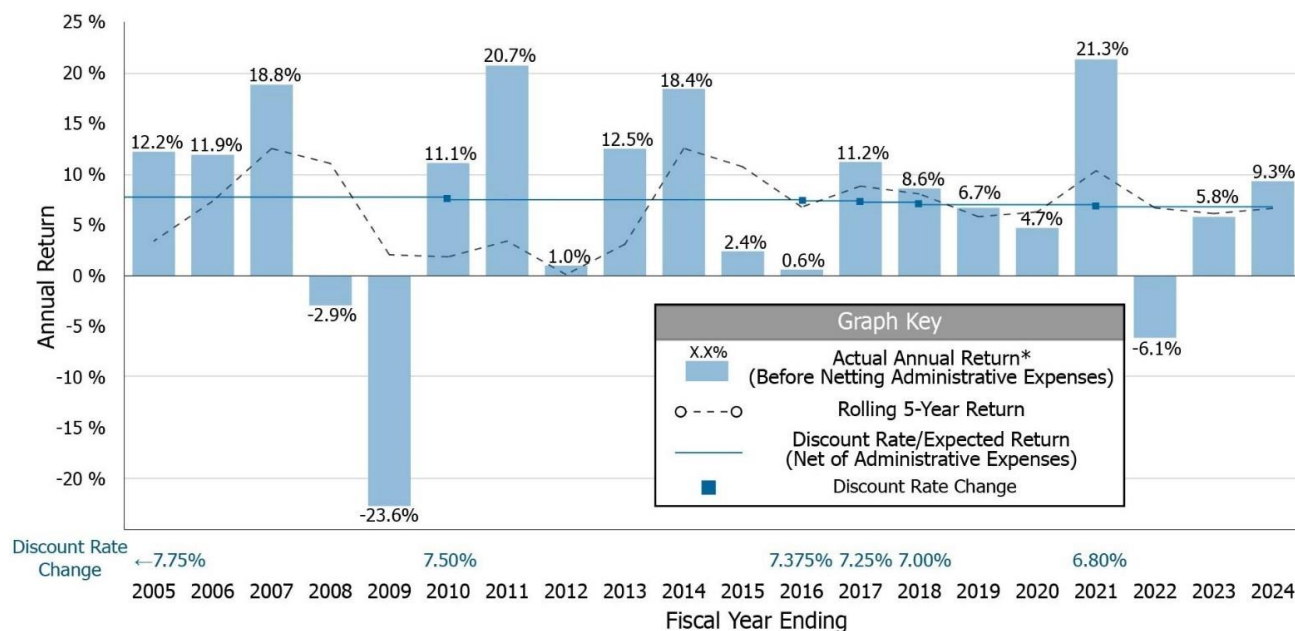
Asset Class	Actual Allocation June 30, 2024	Policy Target Allocation effective July 1, 2024
Public Equity Capitalization Weighted	31.8%	27.0%
Public Equity Factor Weighted	10.0%	10.0%
Treasuries	7.3%	7.0%
Mortgage-backed Securities	5.3%	5.0%
Investment Grade Corporates	6.4%	6.0%
High Yield Bonds	5.3%	5.0%
Emerging Market Sovereign Bonds	5.3%	5.0%
Private Equity	15.5%	17.0%
Real Assets	13.2%	15.0%
Private Debt	2.8%	8.0%
Strategic Financing	(3.0%)	(5.0%)
Total Fund	100.0%	100.0%

For more information see the [Trust Level Review as of June 30, 2024](#) which is available on the CalPERS website.

CalPERS History of Investment Returns

The following is a chart with 20 years of historical annual returns of the PERF for each fiscal year ending on June 30 as reported by the Investment Office. Investment returns reported are net of investment expenses but without reduction for administrative expenses. The assumed rate of return, however, is net of both investment and administrative expenses. Also, the Investment Office uses lagged private asset valuations for investment performance reporting purposes. This can lead to a timing difference in private asset influence on performance in the returns below and those used for financial reporting purposes. The investment gain or loss calculation in this report relies on final assets that have been audited and are appropriate for financial reporting. Because of these differences, the effective investment return for funding purposes in a single year can be higher or lower than the return reported by the Investment Office shown here.

History of Investment Returns (2005 through 2024)



* As reported by the Investment Office with lagged private valuations and without any reduction for administrative expenses.

The table below shows annualized investment returns of the PERF for various time periods ending on June 30, 2024. These returns are the annual rates that if compounded over the indicated number of years would equate to the actual time-weighted investment performance of the PERF. It should be recognized that the annual rate of return is volatile, as the chart above illustrates, so when looking at investment returns, it is informative to look at average returns over longer time horizons.

PERF Realized Rates of Return as of June 30, 2024					
1 year	3 year	5 year	10 year	20 year	30 year
9.3%	2.8%	6.6%	6.2%	6.7%	7.7%

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Liabilities and Contributions

Key Results — State Miscellaneous

Key results of the current and prior valuations are shown below.

Participant Information

	June 30, 2023	June 30, 2024
Members Included in the Valuation		
Active Members	184,297	189,524
Transferred Members from State Miscellaneous	25,775	27,376
Separated Members	78,846	82,960
Receiving Payments	213,206	216,324
Total	502,124	516,184
Average Entry Age of Active Members	34.9	35.0
Average Age for Active Members	46.2	46.0
Average Age of Retired Members	72.9	73.2
Average Pay	\$83,791	\$87,921
Covered Payroll in Fiscal Year Ending on Valuation Date	\$15,442,515,914	\$16,663,106,441
Projected Payroll for Contribution Rate	\$16,319,403,738	\$17,609,304,278

Funded Status

	June 30, 2023	June 30, 2024
Present Value of Benefits	\$166,745,206,539	\$174,418,794,863
Accrued Liability	142,014,028,700	147,734,205,605
Market Value of Assets	101,088,491,055	110,024,359,962
Unfunded Liability/(Surplus)	40,925,537,645	37,709,845,643
Funded Ratio	71.2%	74.5%

Employer Contribution

	June 30, 2023	June 30, 2024
Contribution Required in Dollars		
Total Normal Cost	\$2,857,527,595	\$3,065,779,875
Employee Contribution	1,222,323,340	1,313,654,099
Employer Normal Costs	1,635,204,255	1,752,125,776
Amortization of Unfunded Liability	3,487,729,362	3,763,329,313
Total	\$5,122,933,617	\$5,515,455,089
Contribution Required (Percent of Payroll)		
Total Normal Cost	17.51%	17.41%
Offset due to Employee Contribution	7.49%	7.46%
Employer Normal Costs	10.02%	9.95%
Amortization of Unfunded Liability	21.37%	21.37%
Total	31.39%	31.32%

Liabilities and Contributions

Key Results — State Industrial

Key results of the current and prior valuations are shown below.

Participant Information

	June 30, 2023	June 30, 2024
Members Included in the Valuation		
Active Members	11,609	11,807
Transferred Members from State Industrial	7,996	8,171
Separated Members	4,482	4,776
Receiving Payments	18,014	18,502
Total	42,101	43,256
Average Entry Age of Active Members	35.3	35.2
Average Age for Active Members	44.6	44.4
Average Age of Retired Members	69.6	70.0
Average Pay	\$72,026	\$75,496
Covered Payroll in Fiscal Year Ending on Valuation Date	\$836,154,689	\$891,380,947
Projected Payroll for Contribution Rate	\$883,634,897	\$941,997,123

Funded Status

	June 30, 2023	June 30, 2024
Present Value of Benefits	\$7,673,707,488	\$8,115,641,978
Accrued Liability	6,219,461,196	6,568,807,317
Market Value of Assets	4,908,182,724	5,390,225,901
Unfunded Liability/(Surplus)	1,311,278,472	1,178,581,416
Funded Ratio	78.9%	82.1%

Employer Contribution

	June 30, 2023	June 30, 2024
Contribution Required in Dollars		
Total Normal Cost	\$165,504,816	\$174,928,866
Employee Contribution	76,434,419	81,482,751
Employer Normal Costs	89,070,397	93,446,115
Amortization of Unfunded Liability	89,205,690	100,019,639
Total	\$178,276,087	\$193,465,754
Contribution Required (Percent of Payroll)		
Total Normal Cost	18.73%	18.57%
Offset due to Employee Contribution	8.65%	8.65%
Employer Normal Costs	10.08%	9.92%
Amortization of Unfunded Liability	10.10%	10.62%
Total	20.18%	20.54%

Liabilities and Contributions

Key Results — State Safety

Key results of the current and prior valuations are shown below.

Participant Information

	June 30, 2023	June 30, 2024
Members Included in the Valuation		
Active Members	26,371	27,868
Transferred Members from State Safety	6,112	6,372
Separated Members	10,790	10,986
Receiving Payments	31,293	32,188
Total	74,566	77,414
Average Entry Age of Active Members	37.6	37.9
Average Age for Active Members	46.8	46.9
Average Age of Retired Members	70.0	70.3
Average Pay	\$91,963	\$96,921
Covered Payroll in Fiscal Year Ending on Valuation Date	\$2,425,146,020	\$2,700,997,810
Projected Payroll for Contribution Rate	\$2,562,855,512	\$2,854,371,269

Funded Status

	June 30, 2023	June 30, 2024
Present Value of Benefits	\$23,123,400,603	\$24,680,982,817
Accrued Liability	18,524,055,315	19,668,665,673
Market Value of Assets	14,875,485,155	16,496,072,930
Unfunded Liability/(Surplus)	3,648,570,160	3,172,592,743
Funded Ratio	80.3%	83.9%

Employer Contribution

	June 30, 2023	June 30, 2024
Contribution Required in Dollars		
Total Normal Cost	\$593,044,765	\$658,218,015
Employee Contribution	280,632,679	313,124,528
Employer Normal Costs	312,412,086	345,093,487
Amortization of Unfunded Liability	252,098,004	273,581,300
Total	\$564,510,090	\$618,674,787
Contribution Required (Percent of Payroll)		
Total Normal Cost	23.14%	23.06%
Offset due to Employee Contribution	10.95%	10.97%
Employer Normal Costs	12.19%	12.09%
Amortization of Unfunded Liability	9.84%	9.58%
Total	22.03%	21.67%

Liabilities and Contributions

Key Results — State Peace Officers and Firefighters

Key results of the current and prior valuations are shown below.

Participant Information

	June 30, 2023	June 30, 2024
Members Included in the Valuation		
Active Members	41,482	41,098
Transferred Members from State POFF	5,690	5,920
Separated Members	9,268	10,045
Receiving Payments	49,558	51,227
Total	105,998	108,290
Average Entry Age of Active Members	29.1	29.0
Average Age for Active Members	40.3	40.3
Average Age of Retired Members	65.6	66.0
Average Pay	\$97,894	\$103,264
Covered Payroll in Fiscal Year Ending on Valuation Date	\$4,060,818,964	\$4,243,923,869
Projected Payroll for Contribution Rate	\$4,291,408,508	\$4,484,910,842

Funded Status

	June 30, 2023	June 30, 2024
Present Value of Benefits	\$75,354,872,872	\$78,940,072,149
Accrued Liability	63,916,044,325	67,057,990,866
Market Value of Assets	46,091,266,637	50,754,631,593
Unfunded Liability/(Surplus)	17,824,777,688	16,303,359,273
Funded Ratio	72.1%	75.7%

Employer Contribution

	June 30, 2023	June 30, 2024
Contribution Required in Dollars		
Total Normal Cost	\$1,316,174,989	\$1,365,655,351
Employee Contribution	509,390,190	535,946,846
Employer Normal Costs	806,784,799	829,708,505
Amortization of Unfunded Liability	1,256,933,899	1,384,108,682
Total	\$2,063,718,698	\$2,213,817,187
Contribution Required (Percent of Payroll)		
Total Normal Cost	30.67%	30.45%
Offset due to Employee Contribution	11.87%	11.95%
Employer Normal Costs	18.80%	18.50%
Amortization of Unfunded Liability	29.29%	30.86%
Total	48.09%	49.36%

Liabilities and Contributions

Key Results — California Highway Patrol

Key results of the current and prior valuations are shown below.

Participant Information

	June 30, 2023	June 30, 2024
Members Included in the Valuation		
Active Members	6,458	6,555
Transferred Members from CHP	246	238
Separated Members	641	606
Receiving Payments	10,252	10,517
Total	17,597	17,916
Average Entry Age of Active Members	27.5	27.5
Average Age for Active Members	41.2	40.8
Average Age of Retired Members	68.8	68.8
Average Pay	\$143,919	\$154,746
Covered Payroll in Fiscal Year Ending on Valuation Date	\$929,426,071	\$1,014,360,803
Projected Payroll for Contribution Rate	\$982,202,601	\$1,071,960,267

Funded Status

	June 30, 2023	June 30, 2024
Present Value of Benefits	\$20,171,102,237	\$21,420,926,050
Accrued Liability	17,455,908,560	18,519,420,631
Market Value of Assets	11,683,147,992	12,823,008,849
Unfunded Liability/(Surplus)	5,772,760,568	5,696,411,782
Funded Ratio	66.9%	69.2%

Employer Contribution

	June 30, 2023	June 30, 2024
Contribution Required in Dollars		
Total Normal Cost	\$315,483,475	\$337,238,700
Employee Contribution	123,462,867	145,465,008
Employer Normal Costs	192,020,608	191,773,692
Amortization of Unfunded Liability	494,457,579	550,992,294
Total	\$686,478,187	\$742,765,986
Contribution Required (Percent of Payroll)		
Total Normal Cost	32.12%	31.46%
Offset due to Employee Contribution	12.57%	13.57%
Employer Normal Costs	19.55%	17.89%
Amortization of Unfunded Liability	50.34%	51.40%
Total	69.89%	69.29%

Liabilities and Contributions

Accrued and Unfunded Liabilities

The following table shows the development of the accrued liabilities and unfunded liability.

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
1) Present Value of Benefits					
a) Actives and Inactives	\$84,784,845,554	\$4,548,492,694	\$13,372,044,227	\$34,245,628,172	\$9,343,908,545
b) Retired	89,633,949,309	3,567,149,284	11,308,938,590	44,694,443,977	12,077,017,505
c) Total	\$174,418,794,863	\$8,115,641,978	\$24,680,982,817	\$78,940,072,149	\$21,420,926,050
2) Present Value of Future Employee Contributions	\$12,504,529,081	\$789,413,221	\$2,550,652,059	\$5,066,439,577	\$1,279,047,977
3) Present Value of Future Employer Normal Costs	14,180,060,178	757,421,440	2,461,665,085	6,815,641,706	1,622,457,442
4) Accrued Liability [(1c) – (2) – (3)]	147,734,205,605	6,568,807,317	19,668,665,673	67,057,990,866	18,519,420,631
5) Market Value of Assets	\$110,024,359,962	\$5,390,225,901	\$16,496,072,930	\$50,754,631,593	\$12,823,008,849
6) Unfunded Accrued Liability/(Surplus) [(4) – (5)]	\$37,709,845,643	\$1,178,581,416	\$3,172,592,743	\$16,303,359,273	\$5,696,411,782
7) Funded Ratio [(5) ÷ (4)]	74.5%	82.1%	83.9%	75.7%	69.2%

Employer Contribution Rates

The following table shows the development of the employer contribution rates.

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
Employer Contribution Amount					
Normal Cost	\$1,752,125,776	\$93,446,115	\$345,093,487	\$829,708,505	\$191,773,692
Payment on the Unfunded Accrued Liability	3,763,329,313	100,019,639	273,581,300	1,384,108,682	550,992,294
Total Employer Contribution Amount	\$5,515,455,089	\$193,465,754	\$618,674,787	\$2,213,817,187	\$742,765,986
Projected Payroll	\$17,609,304,278	\$941,997,123	\$2,854,371,269	\$4,484,910,842	\$1,071,960,267
Employer Contribution (as a percent of payroll)					
Normal Cost	9.95%	9.92%	12.09%	18.50%	17.89%
Payment on the Unfunded Accrued Liability	21.37%	10.62%	9.58%	30.86%	51.40%
Total Employer Contribution Rate	31.32%	20.54%	21.67%	49.36%	69.29%

Schedule of Amortization Bases

Note that there is a one-year lag between the valuation date and the start of the contribution year.

- The assets, liabilities, and funded status of the plan are measured as of the valuation date (June 30, 2024).
- The required employer contributions determined by the valuation are for the year beginning one year after the valuation date (FY 2025-26).

This one-year lag is necessary due to the amount of time required to extract and test the membership and financial data as well as the need to provide employers with their required employer contribution in advance of the start of the fiscal year.

The Unfunded Accrued Liability (UAL) is used to determine the employer contribution and therefore must be rolled forward one year from the valuation date to the first day of the fiscal year for which the contribution is being determined. The UAL is rolled forward each year by subtracting the expected payment on the UAL for the fiscal year and adjusting for interest. The expected payment on the UAL for a fiscal year is equal to the Expected Employer Contribution for the fiscal year minus the Expected Normal Cost for the year. The Employer Contribution for the first fiscal year is determined by the actuarial valuation one year ago. The Normal Cost Rate for the fiscal year is assumed to be the same as the rate determined by the current valuation.

Liabilities and Contributions

Schedule of Amortization Bases — State Miscellaneous

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2024	Expected Payment in 2024-25	Balance on 6/30/2025	Scheduled Payment for Fiscal Year 2025-26	Payment as Percentage of Payroll
(Gain)/Loss	6/30/00	19	315,528,768	22,872,670	313,347,173	23,513,105	0.13%
(Gain)/Loss Prior to 2009	6/30/00	8	7,984,780,791	1,062,946,312	7,429,253,740	1,092,708,808	6.21%
Payment (Gain)/Loss	6/30/00	19	368,895,777	26,741,243	366,345,197	27,489,997	0.16%
(Gain)/Loss	6/30/09	15	1,092,304,816	92,500,178	1,070,988,080	95,090,182	0.54%
(Gain)/Loss	6/30/10	16	(43,060,416)	(3,491,183)	(42,380,593)	(3,588,936)	(0.02%)
(Gain)/Loss	6/30/11	17	23,020,491	1,792,910	22,733,018	1,843,111	0.01%
Assumption Change	6/30/11	7	241,437,367	218,066,202	32,496,586	33,583,300	0.19%
Assumption Change	6/30/13	9	4,140,838,787	571,706,058	3,831,591,426	567,341,689	3.22%
(Gain)/Loss	6/30/14	20	4,775,525,902	358,839,373	4,729,422,395	368,886,875	2.09%
(Gain)/Loss	6/30/15	21	4,078,706,222	296,041,961	4,050,116,388	304,331,136	1.73%
(Gain)/Loss	6/30/16	22	4,185,854,403	294,175,806	4,166,479,206	302,412,728	1.72%
(Gain)/Loss	6/30/17	23	(3,099,986,468)	(211,403,921)	(3,092,312,099)	(217,323,231)	(1.23%)
(Gain)/Loss	6/30/18	24	207,011,839	13,725,534	206,904,116	14,109,849	0.08%
Assumption Change	6/30/18	14	3,363,867,720	333,592,075	3,247,863,046	342,932,653	1.95%
Method Change	6/30/18	14	1,067,288,050	105,842,103	1,030,482,084	108,805,682	0.62%
Investment (Gain)/Loss	6/30/19	15	545,300,512	55,118,414	525,419,326	55,118,414	0.31%
Non-Investment (Gain)/Loss	6/30/19	15	499,147,587	50,453,324	480,949,097	50,453,324	0.29%
Investment (Gain)/Loss	6/30/20	16	2,418,000,483	192,718,115	2,383,261,742	240,897,644	1.37%
Non-Investment (Gain)/Loss	6/30/20	16	307,166,680	30,023,168	297,026,846	30,023,168	0.17%
Assumption Change	6/30/21	17	341,122,297	32,342,395	330,894,661	32,342,395	0.18%
Net Investment (Gain)	6/30/21	17	(12,004,347,986)	(721,779,820)	(12,074,726,895)	(962,373,094)	(5.47%)
Non-Investment (Gain)/Loss	6/30/21	17	(749,926,322)	(71,101,811)	(727,441,796)	(71,101,811)	(0.40%)
Investment (Gain)/Loss	6/30/22	18	16,696,120,007	686,331,277	17,122,173,386	1,029,496,916	5.85%
Non-Investment (Gain)/Loss	6/30/22	18	1,914,711,098	176,579,884	1,862,426,586	176,579,883	1.00%
Investment (Gain)/Loss	6/30/23	19	784,783,711	16,868,686	820,716,214	33,737,372	0.19%
Non-Investment (Gain)/Loss	6/30/23	19	651,673,502	58,600,798	635,426,841	58,600,798	0.33%
Investment (Gain)/Loss	6/30/24	20	(2,636,989,067)	0	(2,816,304,324)	(60,535,600)	(0.34%)
Non-Investment (Gain)/Loss	6/30/24	20	241,069,092	(697,305,561)	978,085,845	87,952,956	0.50%
Total			37,709,845,643	2,992,796,190	37,181,237,292	3,763,329,313	21.37%

The total required UAL payment of \$3,763,329,313 is the sum of the required payments for each individual UAL base as shown above. One year of Interest at 6.8% on the total UAL is \$2,402,475,186. Therefore, after subtracting the portion of the UAL payment going toward interest, the remaining portion of \$1,360,854,127 will result in a reduction in the UAL of that amount. Another measure that can be used to evaluate the effectiveness of the FY 2025-26 required UAL payment is the number of years it would take the for FY 2025-26 payment, if held constant, to pay off the existing UAL (note, actual future UAL payments will vary each year). An annual payment of \$3,763,329,313 would pay off the current UAL in 16.0 years (ignoring any changes in UAL occurring after June 30, 2024).

Liabilities and Contributions

Schedule of Amortization Bases — State Industrial

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2024	Expected Payment in 2024-25	Balance on 6/30/2025	Scheduled Payment for Fiscal Year 2025-26	Payment as Percentage of Payroll
(Gain)/Loss	6/30/00	19	97,403,802	7,060,798	96,730,343	7,258,501	0.77%
Payment (Gain)/Loss	6/30/00	19	(1,470,903)	(106,626)	(1,460,733)	(109,611)	(0.01%)
Actuarial Equivalent Reduction Benefits	6/30/04	0	881,967	911,461	0	0	0.00%
New Rate Stabilization Policies	6/30/04	0	(881,967)	(911,461)	0	0	0.00%
(Gain)/Loss	6/30/09	15	37,773,952	3,198,830	37,036,779	3,288,397	0.35%
(Gain)/Loss	6/30/10	16	5,261,213	426,560	5,178,151	438,504	0.05%
(Gain)/Loss	6/30/11	17	(7,205,365)	(561,177)	(7,115,387)	(576,890)	(0.06%)
Assumption Change	6/30/13	9	87,100,927	29,058,220	62,993,838	10,706,442	1.14%
(Gain)/Loss	6/30/14	20	149,379,566	11,224,579	147,937,438	11,538,868	1.22%
(Gain)/Loss	6/30/15	21	171,476,282	12,446,146	170,274,313	12,794,639	1.36%
(Gain)/Loss	6/30/16	22	262,681,992	18,460,911	261,466,108	18,977,817	2.01%
(Gain)/Loss	6/30/17	23	(177,603,571)	(12,111,695)	(177,163,893)	(12,450,823)	(1.32%)
Assumption Change	6/30/17	13	10,875,040	1,148,265	10,427,879	1,180,416	0.13%
(Gain)/Loss	6/30/18	24	6,835,709	453,229	6,832,152	465,919	0.05%
Assumption Change	6/30/18	14	150,027,093	14,878,067	144,853,333	15,294,653	1.62%
Method Change	6/30/18	14	52,297,231	5,186,275	50,493,734	5,331,490	0.57%
Investment (Gain)/Loss	6/30/19	15	24,653,256	2,491,926	23,754,419	2,491,926	0.26%
Non-Investment (Gain)/Loss	6/30/19	15	12,087,596	1,221,802	11,646,892	1,221,802	0.13%
Investment (Gain)/Loss	6/30/20	16	110,634,384	8,817,719	109,044,931	11,022,149	1.17%
Non-Investment (Gain)/Loss	6/30/20	16	(1,964,291)	(191,994)	(1,899,448)	(191,994)	(0.02%)
Assumption Change	6/30/21	17	(7,829,654)	(742,343)	(7,594,903)	(742,343)	(0.08%)
Net Investment (Gain)	6/30/21	17	(566,766,861)	(34,077,726)	(570,089,693)	(45,436,968)	(4.82%)
Non-Investment (Gain)/Loss	6/30/21	17	(52,170,906)	(4,946,414)	(50,606,701)	(4,946,414)	(0.53%)
Investment (Gain)/Loss	6/30/22	18	797,187,919	32,770,189	817,530,645	49,155,283	5.22%
Non-Investment (Gain)/Loss	6/30/22	18	90,371,117	8,334,271	87,903,377	8,334,271	0.88%
Investment (Gain)/Loss	6/30/23	19	36,143,500	776,893	37,798,385	1,553,787	0.16%
Non-Investment (Gain)/Loss	6/30/23	19	15,996,254	1,438,440	15,597,457	1,438,440	0.15%
Investment (Gain)/Loss	6/30/24	20	(132,407,242)	0	(141,410,934)	(3,039,585)	(0.32%)
Non-Investment (Gain)/Loss	6/30/24	20	7,813,376	(45,954,461)	55,835,903	5,020,963	0.53%
Total			1,178,581,416	60,700,684	1,195,994,385	100,019,639	10.62%

The total required UAL payment of \$100,019,639 is the sum of the required payments for each individual UAL base as shown above. One year of Interest at 6.8% on the total UAL is \$77,982,874. Therefore, after subtracting the portion of the UAL payment going toward interest, the remaining portion of \$22,036,765 will result in a reduction in the UAL of that amount. Another measure that can be used to evaluate the effectiveness of the FY 2025-26 required UAL payment is the number of years it would take the for FY 2025-26 payment, if held constant, to pay off the existing UAL (note, actual future UAL payments will vary each year). An annual payment of \$100,019,639 would pay off the current UAL in 23.5 years (ignoring any changes in UAL occurring after June 30, 2024).

Liabilities and Contributions

Schedule of Amortization Bases — State Safety

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2024	Expected Payment in 2024-25	Balance on 6/30/2025	Scheduled Payment for Fiscal Year 2025-26	Payment as Percentage of Payroll
(Gain)/Loss	6/30/00	19	841,327,527	60,987,804	835,510,511	62,695,463	2.20%
Payment (Gain)/Loss	6/30/00	19	(43,605,779)	(3,160,981)	(43,304,285)	(3,249,489)	(0.11%)
New Rate Stabilization Policies	6/30/04	0	(995,053)	(1,028,328)	0	0	0.00%
(Gain)/Loss	6/30/09	15	142,160,848	12,038,676	139,386,526	12,375,759	0.43%
(Gain)/Loss	6/30/10	16	(108,274,544)	(8,778,509)	(106,565,143)	(9,024,308)	(0.32%)
(Gain)/Loss	6/30/11	17	(10,019,770)	(780,372)	(9,894,646)	(802,222)	(0.03%)
Assumption Change	6/30/13	9	356,198,200	102,009,753	274,998,632	43,816,223	1.54%
(Gain)/Loss	6/30/14	20	187,996,522	14,126,309	186,181,581	14,521,846	0.51%
(Gain)/Loss	6/30/15	21	472,561,925	34,299,641	469,249,486	35,260,031	1.24%
(Gain)/Loss	6/30/16	22	481,407,802	33,832,645	479,179,495	34,779,960	1.22%
(Gain)/Loss	6/30/17	23	(539,920,078)	(36,819,910)	(538,583,444)	(37,850,867)	(1.33%)
Assumption Change	6/30/17	13	187,696,953	19,818,389	179,979,213	20,373,304	0.71%
(Gain)/Loss	6/30/18	24	(102,878,430)	(6,821,163)	(102,824,895)	(7,012,155)	(0.25%)
Assumption Change	6/30/18	14	437,831,618	43,419,412	422,732,774	44,635,155	1.56%
Method Change	6/30/18	14	158,345,010	15,702,948	152,884,403	16,142,631	0.57%
Investment (Gain)/Loss	6/30/19	15	71,817,541	7,259,243	69,199,135	7,259,243	0.25%
Non-Investment (Gain)/Loss	6/30/19	15	(38,720,881)	(3,913,867)	(37,309,151)	(3,913,867)	(0.14%)
Investment (Gain)/Loss	6/30/20	16	330,243,964	26,320,919	325,499,441	32,901,148	1.15%
Non-Investment (Gain)/Loss	6/30/20	16	(96,012,602)	(9,384,489)	(92,843,145)	(9,384,490)	(0.33%)
Assumption Change	6/30/21	17	(19,671,470)	(1,865,086)	(19,081,674)	(1,865,086)	(0.07%)
Net Investment (Gain)	6/30/21	17	(1,736,360,655)	(104,401,345)	(1,746,540,564)	(139,201,794)	(4.88%)
Non-Investment (Gain)/Loss	6/30/21	17	(145,344,472)	(13,780,361)	(140,986,708)	(13,780,361)	(0.48%)
Investment (Gain)/Loss	6/30/22	18	2,409,232,472	99,036,878	2,470,711,524	148,555,317	5.20%
Non-Investment (Gain)/Loss	6/30/22	18	264,352,953	24,379,351	257,134,336	24,379,351	0.85%
Investment (Gain)/Loss	6/30/23	19	105,140,499	2,259,963	109,954,515	4,519,926	0.16%
Non-Investment (Gain)/Loss	6/30/23	19	20,865,823	1,876,329	20,345,624	1,876,329	0.07%
Investment (Gain)/Loss	6/30/24	20	(412,665,985)	0	(440,727,272)	(9,473,298)	(0.33%)
Non-Investment (Gain)/Loss	6/30/24	20	(40,117,195)	(95,773,975)	56,131,574	5,047,551	0.18%
Total			3,172,592,743	210,859,874	3,170,417,843	273,581,300	9.58%

The total required UAL payment of \$273,581,300 is the sum of the required payments for each individual UAL base as shown above. One year of Interest at 6.8% on the total UAL is \$206,439,623. Therefore, after subtracting the portion of the UAL payment going toward interest, the remaining portion of \$67,141,677 will result in a reduction in the UAL of that amount. Another measure that can be used to evaluate the effectiveness of the FY 2025-26 required UAL payment is the number of years it would take the for FY 2025-26 payment, if held constant, to pay off the existing UAL (note, actual future UAL payments will vary each year). An annual payment of \$273,581,300 would pay off the current UAL in 21.9 years (ignoring any changes in UAL occurring after June 30, 2024).

Liabilities and Contributions

Schedule of Amortization Bases — State Peace Officers and Firefighters

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2024	Expected Payment in 2024-25	Balance on 6/30/2025	Scheduled Payment for Fiscal Year 2025-26	Payment as Percentage of Payroll
(Gain)/Loss	6/30/00	19	4,673,878,990	338,809,332	4,641,563,356	348,295,994	7.77%
Payment (Gain)/Loss	6/30/00	19	(2,588,014)	(187,605)	(2,570,120)	(192,858)	0.00%
(Gain)/Loss	6/30/09	15	354,155,044	29,991,083	347,243,577	30,830,833	0.69%
(Gain)/Loss	6/30/10	16	42,721,850	3,463,733	42,047,373	3,560,718	0.08%
(Gain)/Loss	6/30/11	17	292,609,828	22,789,391	288,955,809	23,427,494	0.52%
Assumption Change	6/30/13	9	672,519,550	291,845,255	416,646,070	81,186,053	1.81%
(Gain)/Loss	6/30/14	20	1,634,751,507	122,837,404	1,618,969,418	126,276,851	2.82%
(Gain)/Loss	6/30/15	21	1,633,253,099	118,545,300	1,621,804,754	121,864,568	2.72%
(Gain)/Loss	6/30/16	22	1,919,516,464	134,900,846	1,910,631,538	138,678,070	3.09%
(Gain)/Loss	6/30/17	23	(1,011,452,128)	(68,976,090)	(1,008,948,163)	(70,907,421)	(1.58%)
Assumption Change	6/30/17	13	150,874,119	15,930,371	144,670,463	16,376,421	0.37%
(Gain)/Loss	6/30/18	24	(214,881,706)	(14,247,331)	(214,769,888)	(14,646,256)	(0.33%)
Assumption Change	6/30/18	14	1,644,910,084	163,124,419	1,588,184,531	167,691,903	3.74%
Method Change	6/30/18	14	465,451,754	46,158,479	449,400,415	47,450,916	1.06%
Investment (Gain)/Loss	6/30/19	15	213,152,899	21,545,276	205,381,528	21,545,276	0.48%
Non-Investment (Gain)/Loss	6/30/19	15	55,245,579	5,584,166	53,231,373	5,584,166	0.12%
Investment (Gain)/Loss	6/30/20	16	1,005,673,469	80,153,621	991,225,238	100,192,027	2.23%
Non-Investment (Gain)/Loss	6/30/20	16	227,747,784	22,260,585	220,229,635	22,260,585	0.50%
Assumption Change	6/30/21	17	550,720,526	52,214,765	534,208,650	52,214,765	1.16%
Net Investment (Gain)	6/30/21	17	(5,235,252,789)	(314,777,597)	(5,265,945,950)	(419,703,463)	(9.36%)
Non-Investment (Gain)/Loss	6/30/21	17	(716,837,911)	(67,964,641)	(695,345,452)	(67,964,641)	(1.52%)
Investment (Gain)/Loss	6/30/22	18	7,466,240,155	306,916,466	7,656,764,471	460,374,698	10.26%
Non-Investment (Gain)/Loss	6/30/22	18	1,246,489,147	114,954,631	1,212,451,597	114,954,631	2.56%
Investment (Gain)/Loss	6/30/23	19	331,631,516	7,128,318	346,815,764	14,256,636	0.32%
Non-Investment (Gain)/Loss	6/30/23	19	290,757,266	26,145,927	283,508,491	26,145,927	0.58%
Investment (Gain)/Loss	6/30/24	20	(1,277,625,626)	0	(1,364,504,169)	(29,329,600)	(0.65%)
Non-Investment (Gain)/Loss	6/30/24	20	(110,303,183)	(799,281,032)	708,205,873	63,684,389	1.42%
Total			16,303,359,273	659,865,072	16,730,056,182	1,384,108,682	30.86%

The total required UAL payment of \$1,384,108,682 is the sum of the required payments for each individual UAL base as shown above. One year of Interest at 6.8% on the total UAL is \$1,091,358,044. Therefore, after subtracting the portion of the UAL payment going toward interest, the remaining portion of \$292,750,638 will result in a reduction in the UAL of that amount. Another measure that can be used to evaluate the effectiveness of the FY 2025-26 required UAL payment is the number of years it would take the for FY 2025-26 payment, if held constant, to pay off the existing UAL (note, actual future UAL payments will vary each year). An annual payment of \$1,384,108,682 would pay off the current UAL in 24.1 years (ignoring any changes in UAL occurring after June 30, 2024).

Liabilities and Contributions

Schedule of Amortization Bases — California Highway Patrol

Reason for Base	Date Established	Remaining Amortization Period	Balance on 6/30/2024	Expected Payment in 2024-25	Balance on 6/30/2025	Scheduled Payment for Fiscal Year 2025-26	Payment as Percentage of Payroll
(Gain)/Loss	6/30/00	19	218,971,846	15,873,262	217,457,854	16,317,713	1.52%
(Gain)/Loss Prior to 2009	6/30/00	13	1,425,868,555	133,310,844	1,385,058,744	137,043,548	12.78%
Payment (Gain)/Loss	6/30/00	19	(21,090,256)	(1,528,832)	(20,944,436)	(1,571,639)	(0.15%)
New Rate Stabilization Policies	6/30/04	0	(2,509,877)	(2,593,809)	0	0	0.00%
Benefit Change (SB 439)	6/30/05	1	42,899,688	22,590,182	22,471,250	23,222,708	2.17%
Benefit Change (AB 2936)	6/30/08	4	(107,864,270)	(24,027,959)	(90,367,566)	(24,700,741)	(2.30%)
(Gain)/Loss	6/30/09	15	286,723,076	24,280,709	281,127,569	24,960,569	2.33%
Assumption Change	6/30/09	5	101,884,229	19,264,787	88,903,339	19,804,202	1.85%
(Gain)/Loss	6/30/10	16	97,153,914	7,876,889	95,620,081	8,097,442	0.76%
(Gain)/Loss	6/30/11	17	(43,624,774)	(3,397,637)	(43,080,002)	(3,492,771)	(0.33%)
Assumption Change	6/30/11	7	135,827,671	19,977,793	124,418,085	20,537,171	1.92%
Assumption Change	6/30/13	9	676,524,171	90,166,784	629,345,776	92,691,453	8.65%
(Gain)/Loss	6/30/14	20	472,307,975	35,489,850	467,748,256	36,483,566	3.40%
(Gain)/Loss	6/30/15	21	461,159,623	47,236,505	443,702,343	33,340,385	3.11%
(Gain)/Loss	6/30/17	23	(244,070,202)	(16,644,395)	(243,465,978)	(17,110,438)	(1.60%)
(Gain)/Loss	6/30/18	24	(80,265,493)	(5,321,854)	(80,223,725)	(5,470,866)	(0.51%)
Assumption Change	6/30/18	14	451,844,962	44,809,104	436,262,861	46,063,759	4.30%
Method Change	6/30/18	14	111,122,364	11,019,916	107,290,253	11,328,474	1.06%
Investment (Gain)/Loss	6/30/19	15	57,218,034	5,783,540	55,131,914	5,783,540	0.54%
Non-Investment (Gain)/Loss	6/30/19	15	79,683,167	8,054,292	76,777,988	8,054,293	0.75%
Investment (Gain)/Loss	6/30/20	16	263,072,644	20,967,268	259,293,152	26,209,085	2.44%
Non-Investment (Gain)/Loss	6/30/20	16	76,084,932	7,436,714	73,573,303	7,436,714	0.69%
Assumption Change	6/30/21	17	248,952,842	23,603,649	241,488,660	23,603,649	2.20%
Net Investment (Gain)	6/30/21	17	(1,310,500,501)	(78,795,851)	(1,318,183,683)	(105,061,135)	(9.80%)
Non-Investment (Gain)/Loss	6/30/21	17	(112,404,405)	(10,657,256)	(109,034,261)	(10,657,256)	(0.99%)
Investment (Gain)/Loss	6/30/22	18	1,920,238,278	78,935,680	1,969,239,124	118,403,520	11.05%
Non-Investment (Gain)/Loss	6/30/22	18	181,848,397	16,770,556	176,882,710	16,770,555	1.56%
Investment (Gain)/Loss	6/30/23	19	86,250,451	1,853,927	90,199,558	3,707,854	0.35%
Non-Investment (Gain)/Loss	6/30/23	19	176,676,634	15,887,391	172,271,966	15,887,391	1.48%
Investment (Gain)/Loss	6/30/24	20	(305,434,494)	0	(326,204,040)	(7,011,656)	(0.65%)
Non-Investment (Gain)/Loss	6/30/24	20	351,862,601	37,351,503	337,188,689	30,321,205	2.83%
Total			5,696,411,782	545,573,552	5,519,949,784	550,992,294	51.40%

The total required UAL payment of \$550,992,294 is the sum of the required payments for each individual UAL base as shown above. One year of Interest at 6.8% on the total UAL is \$356,930,933. Therefore, after subtracting the portion of the UAL payment going toward interest, the remaining portion of \$194,061,361 will result in a reduction in the UAL of that amount. Another measure that can be used to evaluate the effectiveness of the FY 2025-26 required UAL payment is the number of years it would take the for FY 2025-26 payment, if held constant, to pay off the existing UAL (note, actual future UAL payments will vary each year). An annual payment of \$550,992,294 would pay off the current UAL in 16.4 years (ignoring any changes in UAL occurring after June 30, 2024).

Liabilities and Contributions

(Gain)/Loss Analysis

To calculate the required cost of the plan, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year, actual experience is compared to the expected experience based on the actuarial assumptions. This results in actuarial gains or losses, as shown below.

	State Miscellaneous	State Industrial	State Safety
1) Total (Gain)/Loss for the Year			
a) Unfunded Accrued Liability/(Surplus) as of June 30, 2023	\$40,925,537,645	\$1,311,278,472	\$3,648,570,160
b) Expected Payment on Unfunded Accrued Liability During 2023-24	3,486,129,437	94,122,589	262,518,176
c) Interest through June 30, 2024 $[.068 \times (1a) - ((1.068)^{1/2} - 1) \times (1b)]$	2,666,357,410	86,019,399	239,323,939
d) Expected Unfunded Liability as of June 30, 2024 After All Changes $[(1a) - (1b) + (1c)]$	\$40,105,765,618	\$1,303,175,282	\$3,625,375,923
e) Change Due to Method Change	0	0	0
f) Change Due to Risk Mitigation	0	0	0
g) Change Due to Assumption Change	0	0	0
h) Expected Unfunded Accrued Liability After All Other Changes $[(1d) + (1e) + (1f) + (1g)]$	\$40,105,765,618	\$1,303,175,282	\$3,625,375,923
i) Actual Unfunded Accrued Liability as of June 30, 2024	37,709,845,643	1,178,581,416	3,172,592,743
j) Total (Gain)/Loss for 2023-24 [(1i) - (1h)]	(\$2,395,919,975)	(\$124,593,866)	(\$452,783,180)
2) Contribution (Gain)/Loss for the Year			
a) Expected Contributions for 2023-24	\$6,265,825,540	\$255,119,492	\$839,409,971
b) Interest on Expected Contributions for 2023-24	209,513,693	8,529,954	28,067,077
c) Actual Contributions for 2023-24	7,339,917,663	307,884,941	1,103,615,511
d) Interest on Actual Contributions for 2023-24	245,432,251	10,294,475	36,902,336
e) Expected Contributions with Interest for 2023-24 $[(2a) + (2b)]$	6,475,339,233	263,649,446	867,477,048
f) Actual Contributions with Interest for 2023-24 $[(2c) + (2d)]$	7,585,349,914	318,179,416	1,140,517,847
g) Contribution (Gain)/Loss for 2023-24 [(2e) - (2f)]	(\$1,110,010,681)	(\$54,529,970)	(\$273,040,799)
3) Investment (Gain)/Loss for the Year			
a) Market Value of Assets as of June 30, 2023	\$101,088,491,055	\$4,908,182,724	\$14,875,485,155
b) Receivables as of June 30, 2023	(140,796,723)	(9,855,207)	(8,436,119)
c) Receivables as of June 30, 2024	123,411,015	7,709,930	7,480,184
d) Contributions Received During 2023-24	7,339,917,663	307,884,941	1,103,615,511
e) Benefits and Refunds Paid During 2023-24	(7,910,410,638)	(291,179,787)	(916,851,726)
f) Transfers, SCP Payments and Interest, and Miscellaneous Adjustments During 2023-24	40,073,847	1,386,256	4,753,612
g) Expected Interest for 2023-24 $[0.068 \times (3a + 3b) + ((1.068)^{1/2} - 1) \times ((3d) + (3e) + (3f))]$	6,846,684,677	333,689,803	1,017,360,330
h) Expected Assets as of June 30, 2024 $[(3a) + (3b) + (3c) + (3d) + (3e) + (3f) + (3g)]$	107,387,370,895	5,257,818,659	16,083,406,945
i) Actual Market Value of Assets as of June 30, 2024	110,024,359,962	5,390,225,901	16,496,072,930
j) Investment (Gain)/Loss for 2023-24 [(3h) - (3i)]	(\$2,636,989,067)	(\$132,407,242)	(\$412,665,985)
4) Liability (Gain)/Loss for the Year			
a) Total (Gain)/Loss for 2023-24 (1j)	(\$2,395,919,975)	(\$124,593,866)	(\$452,783,180)
b) Contribution (Gain)/Loss for 2023-24 (2g)	(1,110,010,681)	(54,529,970)	(273,040,799)
c) Investment (Gain)/Loss for 2023-24 (3j)	(2,636,989,067)	(132,407,242)	(412,665,985)
d) Liability (Gain)/Loss for 2023-24 [(4a) - (4b) - (4c)]	\$1,351,079,773	\$62,343,346	\$232,923,604

Liabilities and Contributions

(Gain)/Loss Analysis (continued)

	State Peace Officers and Firefighters	California Highway Patrol
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability/(Surplus) as of June 30, 2023	\$17,824,777,688	\$5,772,760,568
b) Expected Payment on Unfunded Accrued Liability During 2023-24	1,302,033,379	498,649,355
c) Interest through June 30, 2024 $[0.068 \times (1a) - ((1.068)^{1/2} - 1) \times (1b)]$	1,168,543,773	375,872,462
d) Expected Unfunded Liability as of June 30, 2024 After All Changes $[(1d) - (1b) + (1c)]$	\$17,691,288,082	\$5,649,983,675
e) Change Due to Method Change	0	0
f) Change Due to Risk Mitigation	0	0
g) Change Due to Assumption Change	0	0
h) Expected Unfunded Accrued Liability After All Other Changes $[(1d) + (1e) + (1f) + (1g)]$	\$17,691,288,082	\$5,649,983,675
i) Actual Unfunded Accrued Liability as of June 30, 2024	16,303,359,273	5,696,411,782
j) Total (Gain)/Loss for 2023-24 $[(1i) - (1h)]$	(\$1,387,928,809)	\$46,428,107
2) Contribution (Gain)/Loss for the Year		
a) Expected Contributions for 2023-24	\$2,582,359,244	\$805,539,896
b) Interest on Expected Contributions for 2023-24	86,338,137	26,933,396
c) Actual Contributions for 2023-24	3,388,049,017	888,435,572
d) Interest on Actual Contributions for 2023-24	113,281,092	29,705,499
e) Expected Contributions with Interest for 2023-24 $[(2a) + (2b)]$	2,668,697,381	832,473,292
f) Actual Contributions with Interest for 2023-24 $[(2c) + (2d)]$	3,501,330,109	918,141,071
g) Contribution (Gain)/Loss for 2023-24 $[(2e) - (2f)]$	(\$832,632,728)	(\$85,667,779)
3) Investment (Gain)/Loss for the Year		
a) Market Value of Assets as of June 30, 2023	\$46,091,266,637	\$11,683,147,992
b) Receivables as of June 30, 2023	(39,680,857)	(6,221,026)
c) Receivables as of June 30, 2024	34,018,016	5,445,058
d) Contributions Received During 2023-24	3,388,049,017	888,435,572
e) Benefits and Refunds Paid During 2023-24	(3,148,856,689)	(851,348,842)
f) Transfers, SCP Payments and Interest, and Miscellaneous Adjustments During 2023-24	12,309,729	2,756,715
g) Expected Interest for 2023-24 $[0.068 \times (3a + 3b) + ((1.068)^{1/2} - 1) \times ((3d) + (3e) + (3f))]$	3,139,900,114	795,358,887
h) Expected Assets as of June 30, 2024 $[(3a) + (3b) + (3c) + (3d) + (3e) + (3f) + (3g)]$	49,477,005,967	12,517,574,355
i) Actual Market Value of Assets as of June 30, 2024	50,754,631,593	12,823,008,849
j) Investment (Gain)/Loss for 2023-24 $[(3h) - (3i)]$	(\$1,277,625,626)	(\$305,434,494)
4) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss for 2023-24 (1j)	(\$1,387,928,809)	\$46,428,107
b) Contribution (Gain)/Loss for 2023-24 (2g)	(832,632,728)	(85,667,779)
c) Investment (Gain)/Loss for 2023-24 (3j)	(1,277,625,626)	(305,434,494)
d) Liability (Gain)/Loss for 2023-24 $[(4a) - (4b) - (4c)]$	\$722,329,545	\$437,530,380

Liabilities and Contributions

Reconciliation of Employer Contribution Rates

Change in Normal Cost Rate from 2024-25 to 2025-26

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2024-2025 Normal Cost Rate	10.02%	10.08%	12.19%	18.80%	19.55%
Effect of Changes in Demographic Results	(0.10%)	(0.16%)	(0.10%)	(0.30%)	(0.73%)
Effect of Risk Mitigation	0.00%	0.00%	0.00%	0.00%	0.00%
Effect of Change in Assumptions	0.00%	0.00%	0.00%	0.00%	0.00%
Effect of Change in Member Contribution Rates	0.03%	0.00%	0.00%	0.00%	(0.93%)
2025-2026 Normal Cost Rate	9.95%	9.92%	12.09%	18.50%	17.89%

Change in Unfunded Accrued Liability Amortization Rate from 2024-25 to 2025-26

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2024-2025 Rate to Amortize the UAL	21.37%	10.10%	9.84%	29.29%	50.34%
Effect of Elimination of Amortization Bases	0.00%	0.00%	0.04%	0.00%	0.26%
Effect of Progression of Amortization Bases	0.91%	0.83%	0.85%	1.54%	1.76%
Effect of Amortizing Prior Year's Bases over a (Larger)/Smaller than Expected Payroll	(1.05%)	(0.39%)	(0.83%)	(0.50%)	(3.04%)
Effect of Investment (Gain)/Loss	(0.34%)	(0.32%)	(0.33%)	(0.65%)	(0.65%)
Effect of Non-Investment (Gain)/Loss	0.03%	0.03%	(0.21%)	(0.30%)	2.83%
Effect of Risk Mitigation	0.00%	0.00%	0.00%	0.00%	0.00%
Effect of Assumption Change	0.00%	0.00%	0.00%	0.00%	0.00%
Effect of FY 2024-25 Contribution Reduction from Supplemental Pension Payments	0.47%	0.50%	0.39%	1.72%	0.00%
Effect of Budget Act Additional Contribution	(0.02%)	(0.13%)	(0.17%)	(0.24%)	(0.10%)
2025-2026 Rate to Amortize the UAL	21.37%	10.62%	9.58%	30.86%	51.40%

Change in Total Rate from 2024-25 to 2025-26

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2024-2025 Employer Rate	31.39%	20.18%	22.03%	48.09%	69.89%
Effect of Elimination of Amortization Bases	0.00%	0.00%	0.04%	0.00%	0.26%
Effect of Progression of Amortization Bases and Change in Payroll	(0.14%)	0.44%	0.02%	1.04%	(1.28%)
Effect of (Gain)/Loss and Changes in Demographic Results	(0.41%)	(0.45%)	(0.64%)	(1.25%)	1.45%
Effect of Risk Mitigation	0.00%	0.00%	0.00%	0.00%	0.00%
Effect of Change in Assumptions	0.00%	0.00%	0.00%	0.00%	0.00%
Effect of Change in Member Contribution Rates	0.03%	0.00%	0.00%	0.00%	(0.93%)
Effect of FY 2024-25 Contribution Reduction from Supplemental Pension Payments	0.47%	0.50%	0.39%	1.72%	0.00%
Effect of Budget Act Additional Contribution	(0.02%)	(0.13%)	(0.17%)	(0.24%)	(0.10%)
2025-2026 Employer Rate	31.32%	20.54%	21.67%	49.36%	69.29%

Liabilities and Contributions

Reconciliation of Employer Contribution Amounts

Change in Normal Cost Contribution from 2024-25 to 2025-26

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2024-2025 Normal Cost Contribution	\$1,635,204,255	\$89,070,397	\$312,412,086	\$806,784,799	\$192,020,608
Effect of Change in Payroll	129,248,034	5,882,912	35,535,771	36,378,439	17,547,624
Effect of Changes in Demographic Results	(17,609,304)	(1,507,194)	(2,854,370)	(13,454,733)	(7,825,310)
Effect of Risk Mitigation	0	0	0	0	0
Effect of Change in Assumptions	0	0	0	0	0
Effect of Change in Member Contribution Rates	5,282,791	0	0	0	(9,969,230)
2025-2026 Normal Cost Contribution	\$1,752,125,776	\$93,446,115	\$345,093,487	\$829,708,505	\$191,773,692

Change in Unfunded Accrued Liability Amortization Contribution from 2024-25 to 2025-26

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2024-2025 Amortization of the UAL	\$3,487,729,362	\$89,205,690	\$252,098,004	\$1,256,933,899	\$494,457,579
Effect of Elimination of Amortization Bases	0	0	1,028,328	0	2,593,809
Effect of Progression of Amortization Bases	251,104,673	10,059,940	29,867,669	103,776,716	31,700,224
Effect of Amortizing Prior Year's Bases over a (Larger)/Smaller than Expected Payroll	0	0	0	0	0
Effect of Investment (Gain)/Loss	(60,535,600)	(3,039,585)	(9,473,298)	(29,329,600)	(7,011,656)
Effect of Non-Investment (Gain)/Loss	5,493,980	303,317	(6,022,095)	(13,429,091)	30,321,205
Effect of Risk Mitigation	0	0	0	0	0
Effect of Assumption Change	0	0	0	0	0
Effect of FY 2024-25 Contribution Reduction from Supplemental Pension Payments	82,458,976	4,717,646	11,069,646	77,113,480	0
Effect of Budget Act Additional Contribution	(2,922,078)	(1,227,369)	(4,986,954)	(10,956,722)	(1,068,867)
2025-2026 Amortization of the UAL	\$3,763,329,313	\$100,019,639	\$273,581,300	\$1,384,108,682	\$550,992,294

Change in Total Contribution from 2024-25 to 2025-26

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
2024-2025 Employer Contribution ¹	\$5,122,933,617	\$178,276,087	\$564,510,090	\$2,063,718,698	\$686,478,187
Effect of Elimination of Amortization Bases	0	0	1,028,328	0	2,593,809
Effect of Change in Payroll and Progression of Amortization Bases	380,352,707	15,942,852	65,403,440	140,155,155	49,247,848
Effect of (Gain)/Loss and Changes in Demographic Results	(72,650,924)	(4,243,462)	(18,349,763)	(56,213,424)	15,484,239
Effect of Risk Mitigation	0	0	0	0	0
Effect of Change in Assumptions	0	0	0	0	0
Effect of Change in Member Contribution Rates	5,282,791	0	0	0	(9,969,230)
Effect of FY 2024-25 Contribution Reduction from Supplemental Pension Payments	82,458,976	4,717,646	11,069,646	77,113,480	0
Effect of Budget Act Additional Contribution	(2,922,078)	(1,227,369)	(4,986,954)	(10,956,722)	(1,068,867)
2025-2026 Employer Contribution	\$5,515,455,089	\$193,465,754	\$618,674,787	\$2,213,817,187	\$742,765,986

Liabilities and Contributions

History of Employer Contribution Rates

The table below provides a 30-year history of contribution rates. In cases where the contribution rate changed during the course of a fiscal year, the entry shown is the weighted average of the rates effective during the fiscal year.

Fiscal Year	State Miscellaneous				State Industrial	
	Tier 1		Tier 2			
	Actuarially Required Rate	Budgeted Rate	Actuarially Required Rate	Budgeted Rate	Actuarially Required Rate	Budgeted Rate
2025-26	31.32%	31.42%	31.32%	31.42%	20.54%	21.42%
2024-25	31.39%	26.31%	31.39%	26.31%	20.18%	15.52%
2023-24	30.87%	32.00%	30.87%	32.00%	19.54%	21.00%
2022-23	30.71%	32.00%	30.71%	32.00%	19.51%	21.00%
2021-22 ¹	29.12%	29.22%	29.12%	29.22%	16.46%	17.34%
2020-21 ²	31.76%	31.86%	31.76%	31.86%	21.62%	22.50%
2019-20	30.977%	31.075%	30.977%	31.075%	20.823%	21.704%
2018-19	29.298%	29.396%	29.298%	29.396%	19.550%	20.431%
2017-18	28.325%	28.423%	28.325%	28.423%	19.527%	20.408%
2016-17	26.646%	26.728%	26.095%	26.984%	18.365%	19.246%
2015-16	25.068%	25.150%	24.389%	25.278%	17.775%	18.656%
2014-15	24.198%	24.280%	23.510%	24.237%	17.286%	18.134%
2013-14	21.121%	21.203%	20.992%	21.355%	15.682%	16.446%
2012-13	20.503%	20.503%	20.457%	20.457%	16.302%	16.302%
2011-12	18.175%	18.175%	17.025%	17.025%	14.934%	14.934%
2010-11	18.725%	18.725%	18.032%	18.032%	16.433%	16.433%
2009-10	16.917%	16.917%	16.737%	16.737%	17.251%	17.251%
2008-09	16.574%	16.574%	16.470%	16.470%	17.236%	17.236%
2007-08	16.633%	16.633%	16.565%	16.565%	17.345%	17.345%
2006-07	16.997%	16.997%	16.778%	16.778%	17.861%	17.861%
2005-06	15.942%	15.942%	15.890%	15.890%	17.147%	17.147%
2004-05	17.022%	17.022%	13.216%	13.216%	16.386%	16.386%
2003-04	14.843%	14.843%	10.265%	10.265%	11.099%	11.099%
2002-03	7.413%	7.413%	2.813%	2.813%	2.858%	2.858%
2001-02	4.166%	4.166%	0.036%	0.036%	0.350%	0.350%
2000-01	0.000%	0.000%	0.000%	0.000%	0.026%	0.026%
1999-00	1.491%	1.491%	0.000%	0.000%	0.026%	0.026%
1998-99	8.541%	8.541%	6.437%	6.437%	4.583%	4.583%
1997-98	12.721%	12.721%	9.822%	9.822%	9.048%	9.048%
1996-97	13.106%	13.106%	9.345%	9.345%	9.260%	9.260%

¹ Rates for FY 2021-22 include reduction due to State contribution under Government Code section 20825.1.

² Rates for FY 2020-21 are prior to reduction due to State contribution under Government Code section 20825.1.

Liabilities and Contributions

History of Employer Contribution Rates (continued)

Fiscal Year	State Safety		State Peace Officers and Firefighters		California Highway Patrol	
	Actuarially Required Rate	Budgeted Rate	Actuarially Required Rate	Budgeted Rate	Actuarially Required Rate	Budgeted Rate
2025-26	21.67%	22.85%	49.36%	51.01%	69.29%	70.61%
2024-25	22.03%	18.92%	48.09%	30.72%	69.89%	71.21%
2023-24	21.54%	22.75%	46.26%	50.00%	67.69%	71.78%
2022-23	21.13%	22.75%	47.21%	50.00%	63.89%	67.54%
2021-22 ¹	18.29%	19.47%	31.19%	32.84%	61.46%	62.78%
2020-21 ²	21.66%	22.84%	48.93%	50.58%	59.76%	61.08%
2019-20	21.526%	22.708%	47.198%	48.845%	57.811%	59.130%
2018-19	20.352%	21.534%	43.724%	45.371%	53.805%	55.124%
2017-18	19.402%	20.584%	42.598%	44.245%	52.785%	54.104%
2016-17	18.753%	19.935%	40.276%	41.923%	48.719%	50.038%
2015-16	18.082%	19.264%	37.338%	38.985%	45.406%	46.725%
2014-15	18.156%	19.338%	35.180%	36.827%	42.175%	43.494%
2013-14	17.205%	17.905%	30.495%	31.320%	34.616%	35.935%
2012-13	17.503%	17.503%	30.297%	30.297%	33.728%	33.728%
2011-12	16.428%	16.428%	27.415%	27.415%	31.264%	31.264%
2010-11	18.187%	18.187%	28.722%	28.722%	31.291%	31.291%
2009-10	18.099%	18.099%	25.848%	25.848%	28.438%	28.438%
2008-09	18.411%	18.411%	26.064%	26.064%	32.149%	32.149%
2007-08	18.835%	18.835%	25.552%	25.552%	32.212%	32.212%
2006-07	19.294%	19.294%	24.505%	24.505%	31.463%	31.463%
2005-06	19.026%	19.026%	23.563%	23.563%	26.396%	26.396%
2004-05	20.773%	20.773%	23.841%	23.841%	33.434%	33.434%
2003-04	21.930%	21.930%	20.325%	20.325%	32.653%	32.653%
2002-03	17.055%	17.055%	13.925%	13.925%	23.076%	23.076%
2001-02	12.923%	12.923%	9.638%	9.638%	16.897%	16.897%
2000-01	6.808%	6.808%	2.729%	2.729%	13.711%	13.711%
1999-00	7.487%	7.487%	0.000%	0.000%	13.345%	13.345%
1998-99	9.440%	9.440%	9.591%	9.591%	13.541%	13.541%
1997-98	13.754%	13.754%	15.270%	15.270%	15.515%	15.515%
1996-97	14.656%	14.656%	15.401%	15.401%	15.851%	15.851%

¹Rates for FY 2021-22 include reduction due to State contribution under Government Code section 20825.1.

²Rates for FY 2020-21 are prior to reduction due to State contribution under Government Code section 20825.1.

Liabilities and Contributions

History of Funding Progress — State Miscellaneous

Shown below is a 30-year history of funding progress on a market value of assets basis.

(Dollars in Millions)

Valuation Date	Actuarial Accrued Liabilities	Market Value of Assets	Funded Status	Unfunded Liabilities/(Surplus)	Projected Payroll for Contribution	Unfunded/(Surplus) as a % of Payroll
6/30/24	\$147,734	\$110,024	74.5%	\$37,710	\$17,609	214.1%
6/30/23	142,014	101,088	71.2%	40,926	16,319	250.8%
6/30/22	136,885	95,469	69.7%	41,416	15,386	269.2%
6/30/21	130,697	104,355	79.8%	26,342	14,498	181.7%
6/30/20	124,695	87,047	69.8%	37,648	14,287	263.5%
6/30/19	120,101	83,817	69.8%	36,285	13,617	266.5%
6/30/18	115,469	80,223	69.5%	35,246	12,935	272.5%
6/30/17	106,956	72,204	67.5%	34,752	12,396	280.4%
6/30/16	102,444	66,608	65.0%	35,836	11,995	298.7%
6/30/15	97,831	68,080	69.6%	29,751	11,558	257.4%
6/30/14	94,442	68,359	72.4%	26,084	10,854	240.3%
6/30/13	90,277	60,029	66.5%	30,248	10,014	302.1%
6/30/12	83,524	55,371	66.3%	28,152	10,254	274.6%
6/30/11	81,271	57,452	70.7%	23,819	10,426	228.5%
6/30/10	76,980	48,646	63.2%	28,335	10,515	269.5%
6/30/09	74,763	44,094	59.0%	30,669	10,465	293.1%
6/30/08	69,648	59,979	86.1%	9,669	10,241	94.4%
6/30/07	65,342	64,442	98.6%	900	9,530	9.4%
6/30/06	61,299	55,051	89.8%	6,248	8,956	69.8%
6/30/05	58,267	50,231	86.2%	8,036	8,897	90.3%
6/30/04	54,701	45,460	83.1%	9,241	9,079	101.8%
6/30/03	51,559	39,324	76.3%	12,235	9,207	132.9%
6/30/02	48,118	39,530	82.2%	8,588	9,238	93.0%
6/30/01	45,261	43,933	97.1%	1,328	8,816	15.1%
6/30/00	42,386	49,208	116.1%	(6,822)	8,246	(82.7%)
6/30/99	35,771	46,176	129.1%	(10,405)	7,332	(141.9%)
6/30/98	34,169	42,011	122.9%	(7,842)	6,592	(119.0%)
6/30/97	32,557	35,959	110.4%	(3,401)	6,624	(51.4%)
6/30/96	31,742	30,452	95.9%	1,290	6,881	18.8%
6/30/95	29,960	27,088	90.4%	2,872	7,009	41.0%

Liabilities and Contributions

History of Funding Progress — State Industrial

Shown below is a 30-year history of funding progress on a market value of assets basis.

(Dollars in Millions)

Valuation Date	Actuarial Accrued Liabilities	Market Value of Assets	Funded Status	Unfunded Liabilities/(Surplus)	Projected Payroll for Contribution	Unfunded/(Surplus) as a % of Payroll
6/30/24	\$6,569	\$5,390	82.1%	\$1,179	\$942	125.1%
6/30/23	6,219	4,908	78.9%	1,311	884	148.4%
6/30/22	5,917	4,574	77.3%	1,343	843	159.4%
6/30/21	5,550	4,952	89.2%	599	807	74.2%
6/30/20	5,227	4,084	78.1%	1,143	808	141.4%
6/30/19	4,946	3,822	77.3%	1,123	770	145.8%
6/30/18	4,670	3,590	76.9%	1,080	738	146.3%
6/30/17	4,210	3,215	76.4%	995	690	144.2%
6/30/16	3,970	2,898	73.0%	1,072	672	159.6%
6/30/15	3,669	2,885	78.6%	785	636	123.3%
6/30/14	3,458	2,825	81.7%	633	581	108.9%
6/30/13	3,236	2,418	74.7%	818	532	153.7%
6/30/12	2,968	2,168	73.0%	800	578	138.4%
6/30/11	2,832	2,180	77.0%	652	616	105.7%
6/30/10	2,614	1,785	68.3%	830	616	134.7%
6/30/09	2,467	1,556	63.1%	912	574	158.9%
6/30/08	2,235	2,034	91.0%	201	522	38.5%
6/30/07	2,044	2,119	103.7%	(76)	440	(17.2%)
6/30/06	1,870	1,776	95.0%	94	381	24.6%
6/30/05	1,754	1,586	90.4%	168	380	44.2%
6/30/04	1,602	1,415	88.3%	187	378	49.5%
6/30/03	1,462	1,201	82.1%	261	381	68.5%
6/30/02	1,295	1,200	92.7%	95	390	24.4%
6/30/01	1,196	1,325	110.8%	(129)	390	(33.1%)
6/30/00	1,079	1,463	135.6%	(384)	379	(101.3%)
6/30/99	880	1,360	154.5%	(480)	344	(139.5%)
6/30/98	790	1,226	155.2%	(436)	297	(147.1%)
6/30/97	741	1,042	140.7%	(302)	285	(106.0%)
6/30/96	721	861	119.4%	(140)	294	(47.7%)
6/30/95	659	751	113.9%	(91)	271	(33.7%)

Liabilities and Contributions

History of Funding Progress — State Safety

Shown below is a 30-year history of funding progress on a market value of assets basis.

(Dollars in Millions)

Valuation Date	Actuarial Accrued Liabilities	Market Value of Assets	Funded Status	Unfunded Liabilities/(Surplus)	Projected Payroll for Contribution	Unfunded/(Surplus) as a % of Payroll
6/30/24	\$19,669	\$16,496	83.9%	\$3,173	\$2,854	111.1%
6/30/23	18,524	14,875	80.3%	3,649	2,563	142.4%
6/30/22	17,528	13,828	78.9%	3,699	2,495	148.3%
6/30/21	16,397	14,950	91.2%	1,447	2,542	56.9%
6/30/20	15,352	12,250	79.8%	3,102	2,605	119.1%
6/30/19	14,483	11,386	78.6%	3,097	2,554	121.2%
6/30/18	13,591	10,551	77.6%	3,039	2,445	124.3%
6/30/17	12,204	9,327	76.4%	2,877	2,293	125.5%
6/30/16	11,288	8,288	73.4%	3,000	2,245	133.6%
6/30/15	10,255	7,859	76.6%	2,396	2,135	112.2%
6/30/14	9,551	7,562	79.2%	1,990	2,038	97.6%
6/30/13	8,834	6,327	71.6%	2,507	1,881	133.3%
6/30/12	7,827	5,524	70.6%	2,303	1,899	121.3%
6/30/11	7,224	5,390	74.6%	1,835	1,984	92.5%
6/30/10	6,436	4,196	65.2%	2,239	2,004	111.7%
6/30/09	6,006	3,514	58.5%	2,492	2,048	121.7%
6/30/08	5,146	4,365	84.8%	781	1,914	40.8%
6/30/07	4,467	4,342	97.2%	126	1,530	8.2%
6/30/06	3,907	3,486	89.2%	421	1,226	34.3%
6/30/05	3,473	3,000	86.4%	473	1,107	42.7%
6/30/04	3,087	2,509	81.3%	579	889	65.1%
6/30/03	2,788	2,049	73.5%	739	891	82.9%
6/30/02	2,476	1,926	77.8%	551	876	62.9%
6/30/01	2,179	2,000	91.8%	180	850	21.1%
6/30/00	1,865	2,122	113.8%	(257)	759	(33.9%)
6/30/99	1,364	1,927	141.3%	(563)	682	(82.6%)
6/30/98	1,285	1,672	130.1%	(386)	511	(75.7%)
6/30/97	1,086	1,404	129.2%	(318)	414	(76.8%)
6/30/96	947	1,123	118.6%	(176)	474	(37.2%)
6/30/95	914	936	102.5%	(23)	408	(5.5%)

Liabilities and Contributions

History of Funding Progress — State Peace Officers and Firefighters

Shown below is a 30-year history of funding progress on a market value of assets basis.

(Dollars in Millions)

Valuation Date	Actuarial Accrued Liabilities	Market Value of Assets	Funded Status	Unfunded Liabilities/(Surplus)	Projected Payroll for Contribution	Unfunded/(Surplus) as a % of Payroll
6/30/24	\$67,058	\$50,755	75.7%	\$16,303	\$4,485	363.5%
6/30/23	63,916	46,091	72.1%	17,825	4,291	415.4%
6/30/22	61,229	42,536	69.5%	18,693	4,220	443.0%
6/30/21	57,507	46,172	80.3%	11,335	3,920	289.1%
6/30/20	54,102	38,327	70.8%	15,774	4,048	389.6%
6/30/19	51,219	35,359	69.0%	15,860	3,825	414.6%
6/30/18	48,792	33,327	68.3%	15,466	3,719	415.9%
6/30/17	44,619	29,424	65.9%	15,194	3,616	420.2%
6/30/16	41,485	26,622	64.2%	14,863	3,434	432.9%
6/30/15	39,394	26,973	68.5%	12,420	3,335	372.4%
6/30/14	37,466	26,591	71.0%	10,875	3,206	339.2%
6/30/13	35,271	22,919	65.0%	12,352	3,087	400.1%
6/30/12	31,336	20,526	65.5%	10,810	3,132	345.2%
6/30/11	30,127	20,801	69.0%	9,326	3,393	274.8%
6/30/10	27,712	17,199	62.1%	10,512	3,455	304.3%
6/30/09	26,291	15,083	57.4%	11,208	3,592	312.0%
6/30/08	24,004	19,734	82.2%	4,270	3,589	119.0%
6/30/07	22,250	20,539	92.3%	1,711	3,420	50.0%
6/30/06	19,737	16,973	86.0%	2,764	3,058	90.4%
6/30/05	17,753	14,985	84.4%	2,769	2,860	96.8%
6/30/04	15,668	12,999	83.0%	2,670	2,604	102.5%
6/30/03	14,220	11,038	77.6%	3,182	2,507	126.9%
6/30/02	12,827	10,731	83.7%	2,095	2,407	87.1%
6/30/01	11,949	11,574	96.9%	375	2,304	16.3%
6/30/00	10,720	12,668	118.2%	(1,947)	2,227	(87.4%)
6/30/99	8,091	11,685	144.4%	(3,594)	2,018	(178.1%)
6/30/98	7,016	10,322	147.1%	(3,306)	1,540	(214.6%)
6/30/97	6,495	8,436	129.9%	(1,941)	1,410	(137.7%)
6/30/96	6,129	6,860	111.9%	(731)	1,654	(44.2%)
6/30/95	5,552	5,892	106.1%	(340)	1,592	(21.4%)

Liabilities and Contributions

History of Funding Progress — California Highway Patrol

Shown below is a 30-year history of funding progress on a market value of assets basis.

(Dollars in Millions)

Valuation Date	Actuarial Accrued Liabilities	Market Value of Assets	Funded Status	Unfunded Liabilities/(Surplus)	Projected Payroll for Contribution	Unfunded/(Surplus) as a % of Payroll
6/30/24	\$18,519	\$12,823	69.2%	\$5,696	\$1,072	531.4%
6/30/23	17,456	11,683	66.9%	5,773	982	587.7%
6/30/22	16,644	11,013	66.2%	5,631	966	583.0%
6/30/21	15,822	11,924	75.4%	3,898	938	415.7%
6/30/20	14,786	9,501	64.3%	5,285	978	540.6%
6/30/19	14,087	9,082	64.5%	5,005	961	520.6%
6/30/18	13,384	8,541	63.8%	4,843	921	526.2%
6/30/17	12,322	7,417	60.2%	4,904	900	545.1%
6/30/16	11,471	6,706	58.5%	4,765	848	562.2%
6/30/15	10,942	6,735	61.6%	4,207	852	493.9%
6/30/14	10,329	6,645	64.3%	3,684	801	460.0%
6/30/13	9,775	5,760	58.9%	4,014	767	523.5%
6/30/12	8,659	5,220	60.3%	3,439	773	445.0%
6/30/11	8,193	5,336	65.1%	2,857	780	366.4%
6/30/10	7,704	4,440	57.6%	3,264	767	425.4%
6/30/09	7,300	3,932	53.9%	3,368	734	459.1%
6/30/08	6,609	5,238	79.3%	1,371	675	203.2%
6/30/07	6,249	5,546	88.8%	703	613	114.6%
6/30/06	5,744	4,682	81.5%	1,062	556	191.0%
6/30/05	5,349	4,249	79.4%	1,100	546	201.4%
6/30/04	4,742	3,734	78.7%	1,008	509	198.2%
6/30/03	4,421	3,230	73.1%	1,191	476	250.3%
6/30/02	4,138	3,159	76.3%	979	461	212.3%
6/30/01	3,981	3,466	87.1%	515	455	113.2%
6/30/00	3,635	3,443	94.7%	192	433	44.4%
6/30/99	2,983	3,249	108.9%	(266)	402	(66.1%)
6/30/98	2,756	2,901	105.3%	(145)	367	(39.5%)
6/30/97	2,621	2,912	111.1%	(291)	371	(78.6%)
6/30/96	2,328	2,496	107.2%	(168)	343	(49.0%)
6/30/95	2,134	2,207	103.4%	(73)	302	(24.2%)

Liabilities and Contributions

Normal Cost by Group

The table below displays normal cost broken out by benefit group for FY 2025-26. The Total Normal Cost is the annual cost of service accrual for the fiscal year for active employees and can be viewed as the long-term contribution rate for the benefits contracted. Generally, the normal cost for a benefit group subject to more generous benefit provisions will exceed the normal cost for a group with less generous benefits. However, based on the characteristics of the members (particularly when the number of actives is small), this may not be the case. Future measurements of Total Normal Cost for each group may differ significantly from the current values due to factors such as: changes in demographics of the group, changes in economic and demographic assumptions, and changes in plan benefits or applicable law.

The employee contribution rate and breakpoint information shown here reflects membership data as stored in our system and is for informational purposes only. Please refer to the Public Employees' Retirement Law and/or applicable Memoranda of Understanding for the latest rate information. All PEPRAs formulas use 3-year Final Average Compensation (FAC), while Classic formulas use 1-year FAC unless noted.

	State Plans	Total Normal Cost	Employee Contribution	Range of Breakpoints ²	Average Effective Member Rate ^{3,4}	Employer Normal Cost
P	State Miscellaneous (Including CSU) - 2% @ 62	16.3%	6% - 11%	\$0 - \$513	7.9%	8.4%
E	State Miscellaneous - 2nd Tier 2% @ 62 ⁴	12.3%	3.75%	\$0	3.8%	8.5%
P	State Industrial - 2% @ 62	16.9%	6% - 10.5%	\$317 - \$513	8.6%	8.3%
R	State Industrial - 2nd Tier 2% @ 62 ⁴	12.4%	3.75%	\$0	3.8%	8.6%
A	State Safety - 2% @ 57	21.0%	11% - 11.5%	\$0 - \$317	10.9%	10.1%
	State POFF - 2.5% @ 57	26.9%	13% - 15%	\$0 - \$863	11.8%	15.1%
	State POFF - 2.7% @ 57	27.0%	13%	\$863	11.0%	16.0%
	CHP - 2.7% @ 57	24.2%	13.5%	\$863	12.5%	11.7%
C	State Miscellaneous - 2% @ 60 & 3 Year FAC	18.0%	5% - 10%	\$317 - \$513	7.2%	10.8%
L	State Miscellaneous - 2% @ 55 ¹	18.8%	5% - 11%	\$317 - \$513	7.2%	11.6%
A	State Miscellaneous - 2nd Tier 2% @ 55 ⁴	14.6%	3.75%	\$0	3.8%	10.8%
S	State Industrial - 2% @ 60 & 3 Year FAC	19.2%	9% - 10.5%	\$317 - \$513	8.8%	10.4%
S	State Industrial - 2% @ 55 ¹	20.7%	5% - 11%	\$317 - \$513	8.8%	11.9%
I	State Industrial - 2nd Tier 2% @ 55 ⁴	16.0%	3.75%	\$0	3.8%	12.2%
C	State Safety - 2% @ 55 ¹	22.0%	6% - 11.5%	\$0 - \$317	11.1%	10.9%
	State Safety - 2.5% @ 60 & 3 Year FAC	24.5%	11% - 11.5%	\$317	11.0%	13.5%
	State Safety - 2.5% @ 55 ¹	26.0%	11% - 11.5%	\$0 - \$317	11.0%	15.0%
	State POFF - 2.5% @ 55 & 3 Year FAC	30.1%	8% - 15%	\$238 - \$863	12.4%	17.7%
	State POFF - 3% @ 55 ¹	34.7%	8% - 13%	\$238 - \$863	11.4%	23.3%
	State POFF - 3% @ 50 ¹	33.9%	8% - 15%	\$238 - \$863	12.1%	21.8%
	CHP - 3% @ 55 & 3 Year FAC	33.6%	13.5%	\$863	12.6%	21.0%
	CHP - 3% @ 50 ¹	35.7%	13.5%	\$863	12.7%	23.0%
B	State Miscellaneous	17.41%	3.75% - 11%	\$0 - \$513	7.46%	9.95%
L	State Industrial	18.57%	3.75% - 11%	\$0 - \$513	8.65%	9.92%
E	State Safety	23.06%	6% - 11.5%	\$0 - \$317	10.97%	12.09%
N	State POFF	30.45%	8% - 15%	\$0 - \$863	11.95%	18.50%
D	CHP	31.46%	13.5%	\$863	13.57%	17.89%

- (1) Most Classic employees have benefits based on a final one-year compensation period while new hires' benefits are based on a final three-year compensation period.
- (2) Employees make contributions to the pension plan based only on monthly compensation above the breakpoint.
- (3) The average effective member rate was calculated based on data as of June 30, 2024 and is reflective of the different breakpoints and contribution rates paid by members within the same plans. For example, a member earning \$6,000 a month with an 8% contribution rate and a breakpoint of \$513 will contribute \$438.96 and have an effective contribution rate of 7.316% of salary. This is calculated as $(\$6,000 - \$513) \times 8\%$ divided by \$6,000.
- (4) Reflects the Total Normal Cost assuming conversion to Tier 1 benefits for members with Tier 2 service.

Liabilities and Contributions

PEPRA Member Contribution Rates

PEPRA members are required to contribute at least 50% of the total normal cost of their pension benefit. According to Government Code section 7522.30, State employees are excluded from this requirement except for employees of the Legislature, California State University (CSU), and the judicial branch.

The total normal cost of PEPRA members' benefits is remeasured annually as part of the actuarial valuation based on the active PEPRA population in the plan. If the total normal cost changes by more than 1% from the base total normal cost basis established for the plan, the member rate is revised to equal 50% of the new total normal cost rounded to the nearest quarter percent.

The table below shows the determination of the member contribution rates effective July 1, 2025, based on 50% of the total normal cost for each respective plan as of the June 30, 2024 valuation.

	Basis for Current Rate			Rates Effective July 1, 2025			
	Total Normal Cost	Actuarial Valuation Date	Member Rate	Total Normal Cost	Change	Change Needed	Member Rate
State Miscellaneous – CSU, Legislature and Judicial	16.21%	6/30/2021	8.00%	16.34%	0.13%	No	8.00%
State Safety – CSU, Legislature and Judicial	20.97%	6/30/2021	10.50%	20.99%	0.02%	No	10.50%
State POFF – CSU, Legislature and Judicial	26.44%	6/30/2021	13.25%	26.64%	0.20%	No	13.25%

Liabilities and Contributions

State Bargaining Units 2, 5, and 18 - Member Contribution Rates

Pursuant to Government Code section 20683, members of State Bargaining Units 2, 5 and 18 are required to contribute at least 50% of the total annual normal cost of their pension benefit. The total normal cost is remeasured annually as part of the actuarial valuation. Initially, if the total normal cost of the category changes¹ by more than 1% from the total normal cost determined as of June 30, 2015, the new member rate shall be 50% of the new normal cost rounded to the nearest quarter percent. Subsequently, if the total normal cost of the category changes¹ by more than 1% from the basis at that time, the member rate will be revised to equal 50% of the new total normal cost rounded to the nearest quarter percent.

The table below shows the determination of the member contribution rates effective July 1, 2025, based on 50% of the total normal cost for each respective plan as of the June 30, 2024 valuation.

	Basis for Current Rate			Rates Effective July 1, 2025			
	Total Normal Cost	Actuarial Valuation Date	Member Rate	Total Normal Cost	Change	Change Needed	Member Rate
BU 2							
State Miscellaneous ²	17.71%	6/30/2021	8.50%	17.41%	-0.30%	No	8.50%
State Industrial ²	19.00%	6/30/2021	9.00%	18.57%	-0.43%	No	9.00%
State Safety	23.69%	6/30/2021	11.50%	23.06%	-0.63%	No	11.50%
BU 5							
State Miscellaneous ²	17.71%	6/30/2021	8.75%	17.41%	-0.30%	No	8.75%
California Highway Patrol	32.88%	6/30/2021	13.50%	31.46%	-1.42%	Yes	14.50%
BU 18							
State Miscellaneous ²	15.48%	6/30/2015	10.00%	17.41%	1.93%	No	10.00%
State Industrial ²	18.02%	6/30/2015	10.00%	18.57%	0.55%	No	10.00%
State Safety	22.91%	6/30/2020	11.50%	23.06%	0.15%	No	11.50%

(1) Provisions by Bargaining Unit:

- BU 2: the member rate will initially be adjusted if the Total Normal Cost increases or decreases by 1% or more; subsequently, the member rate will be adjusted if the Total Normal Cost increases or decreases by more than 1%.
- BU 5: the member rate will initially be adjusted if the Total Normal Cost increases by 1% or more; subsequently, the member rate will be adjusted if the Total Normal Cost increases or decreases by 1% or more. The increase or decrease in member rate is limited to 1.00% per year.
- BU 18: the member rate will initially be adjusted if the Total Normal Cost increases by 1% or more; subsequently, the member rate will be adjusted if the Total Normal Cost increases or decreases by more than 1%.

(2) The member rate shown here is for a member who participates in Social Security. The member rate for members of these groups who do not participate in Social Security is currently 1% higher than the rate shown here.

Liabilities and Contributions

State Member Contribution Rates

The table below shows the State member contribution rates effective July 1, 2025.

	Rates Effective July 1, 2025				
	State Miscellaneous ¹	State Industrial ¹	State Safety	State POFF	California Highway Patrol
Executive Branch					
Classic and PEPRA members within the executive branch have the same contribution rate. Rank and file (R), supervisors (S), managers (M), confidential (C) and exempt (E) employees have the same contribution rate unless noted.					
Bargaining Units 1, 3, 4, 11, 14, 15, 17, 20	8.50%	9.50%	11.50%		
Bargaining Unit 2 ²	8.50%	9.00%	11.50%		
Bargaining Unit 5 ²	8.75%				14.50%
Bargaining Unit 6	8.00%	9.00%		13.00%	
Bargaining Unit 7	8.50%	8.50%	11.50%	15.00%	
Bargaining Unit 8	10.00%	10.00%		13.00%	
Bargaining Unit 9	8.00%	9.00%	11.00%		
Bargaining Unit 10	8.00%	9.00%	11.00%		
Bargaining Unit 12 – (R)	9.00%	9.50%	11.00%		
Bargaining Unit 12 – (S, M, C, E)	8.00%	9.00%	11.00%		
Bargaining Unit 13 – (R)	10.00%	10.00%	11.50%		
Bargaining Unit 13 – (S, M, C, E)	8.00%	9.00%	11.50%		
Bargaining Unit 16 – (R)	9.00%	9.50%	11.50%		
Bargaining Unit 16 – (S, M, C, E)	8.00%	9.00%	11.50%		
Bargaining Unit 18 ² – (R)	10.00%	10.00%	11.50%		
Bargaining Unit 18 – (S, M, C, E)	8.00%	9.00%	11.50%		
Bargaining Unit 19 – (R)	9.00%	9.50%	11.00%		
Bargaining Unit 19 – (S, M, C, E)	8.00%	9.00%	11.00%		
Bargaining Unit 21	8.50%	8.50%	11.50%		
National Guard	36.42%				
Second Tier	3.75%	3.75%			
California State University					
Classic Members	5.00%	5.00%	6.00%	8.00%	
PEPRA Members ³	8.00%		10.50%	13.25%	
Legislative Branch					
Classic Members	5.00%	5.00%	6.00%	8.00%	
PEPRA Members ³	8.00%		10.50%	13.25%	
Judicial Branch					
Classic Members	8.00%			11.00%	
PEPRA Members ³	8.00%		10.50%	13.25%	

- (1) The member rates shown here for State Miscellaneous and State Industrial are for members who participates in Social Security. For first tier members who do not participate in Social Security, the member rate is 1% higher.
- (2) Member rates depend on the Total Normal Cost rate for the rate plan. See page 40 for more detail.
- (3) Member rates depend on the Total Normal Cost rate for PEPRA benefits. See page 39 for more detail.

Risk Analysis

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Discount Rate Sensitivity

This section illustrates the sensitivity of employer contribution rates to a change in the discount rate assumption. The discount rate reflects expectations of what the markets will deliver in the future. It is calculated based on two components: expected price inflation and real rate of return. A change in either component over the long term would necessitate further evaluation of the discount rate.

For purposes of this analysis, the discount rate is changed by varying the real rate of return assumption while keeping the price inflation assumption unchanged. For information on sensitivity to changes in the underlying price inflation assumption, see the Inflation Rate Sensitivity section.

Government Code section 20229 requires the board to annually disclose contribution rates and liabilities calculated under specified scenarios, including:

- Investment return and discount rate assumptions that are 2% above and 2% below the current investment return and discount rate assumptions set by the board
- An amortization period equal to the estimated average remaining service periods (EARSP) of the employees covered by the contributions

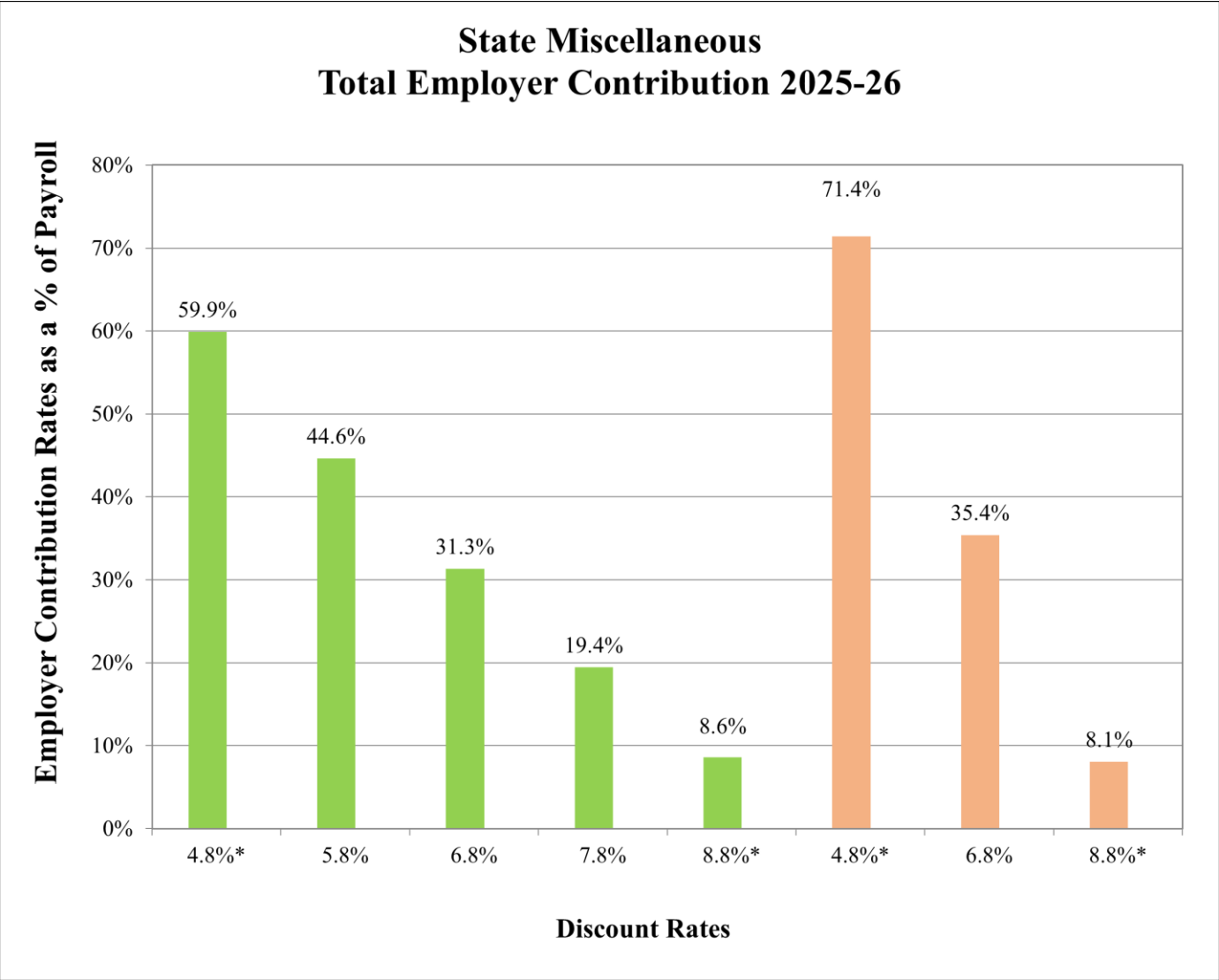
On the following pages, contribution rates and other key results are shown for the following discount rates:

- 4.8% (current discount rate -2%)
- 5.8% (current discount rate -1%)
- 6.8% (current discount rate)
- 7.8% (current discount rate +1%)
- 8.8% (current discount rate +2%)

The discount rates of 5.8% and 7.8% were selected as they reflect a 1% decrease or increase to the current rate of 6.8%. This shows the potential plan impacts if the PERF were to realize investment returns of 5.8% or 7.8% over the long term. The discount rates of 4.8% and 8.8% are shown in order to meet the requirements G.C. 20229. To further satisfy G.C. 20229, in the 4.8% and 8.8% discount rate scenarios, contribution rates for the current fiscal year are shown using both the current amortization method and amortization over the EARSP of the employees covered by the contributions.

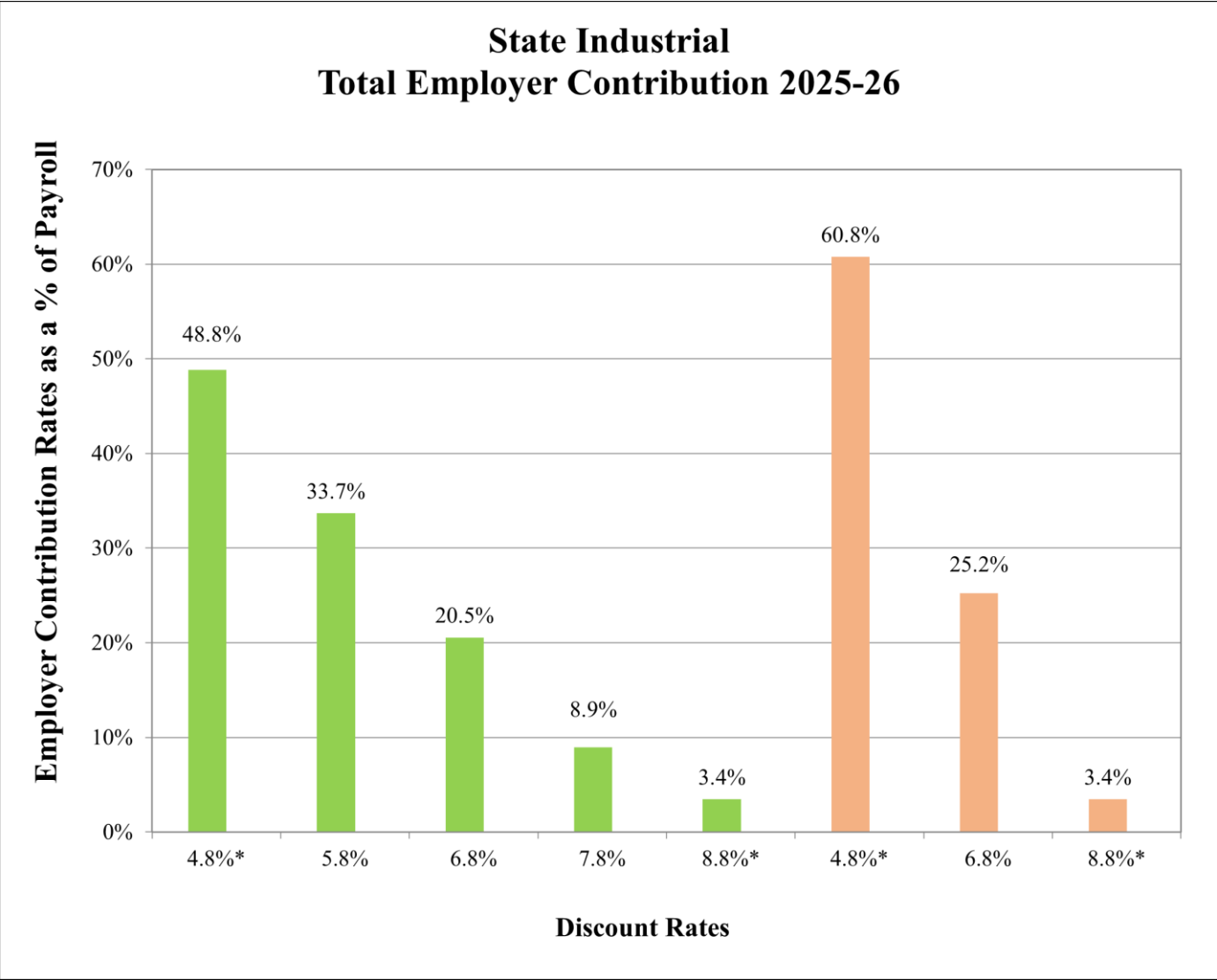
The results of the analysis are displayed in both graphical and tabular form. The reader may interpolate between the data points to estimate other data points of interest.

Discount Rate Sensitivity (continued)



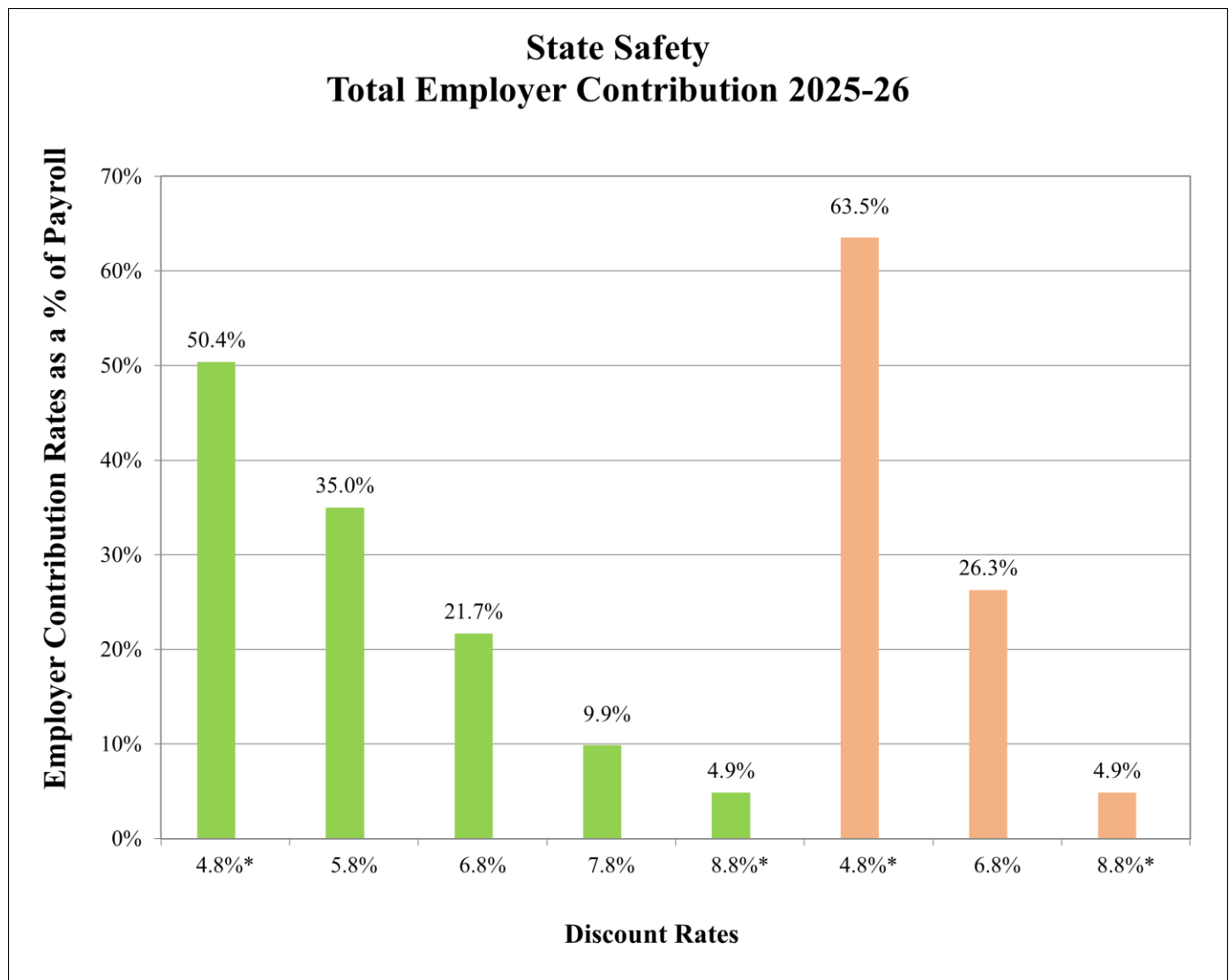
	Analysis of discount rate sensitivity based on current amortization method (varies from 7 to 24 years) or normal cost if in a surplus position
	Analysis of discount rate sensitivity based on amortization of UAL over EARSP (12 years)
*	Required by Government Code section 20229

Discount Rate Sensitivity (continued)



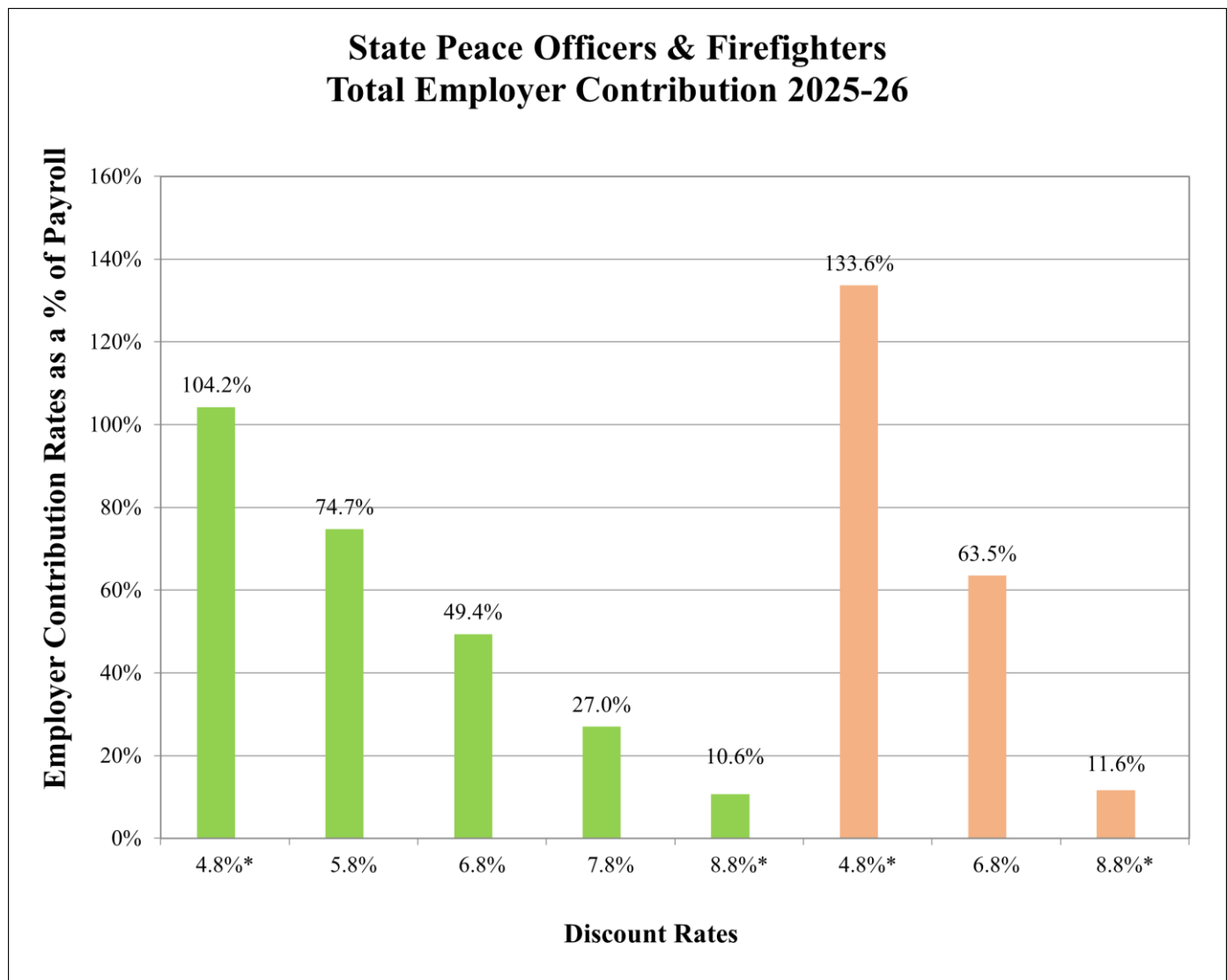
	Analysis of discount rate sensitivity based on current amortization method (varies from 9 to 24 years) or normal cost if in a surplus position
	Analysis of discount rate sensitivity based on amortization of UAL over EARSP (12 years)
*	Required by Government Code section 20229

Discount Rate Sensitivity (continued)



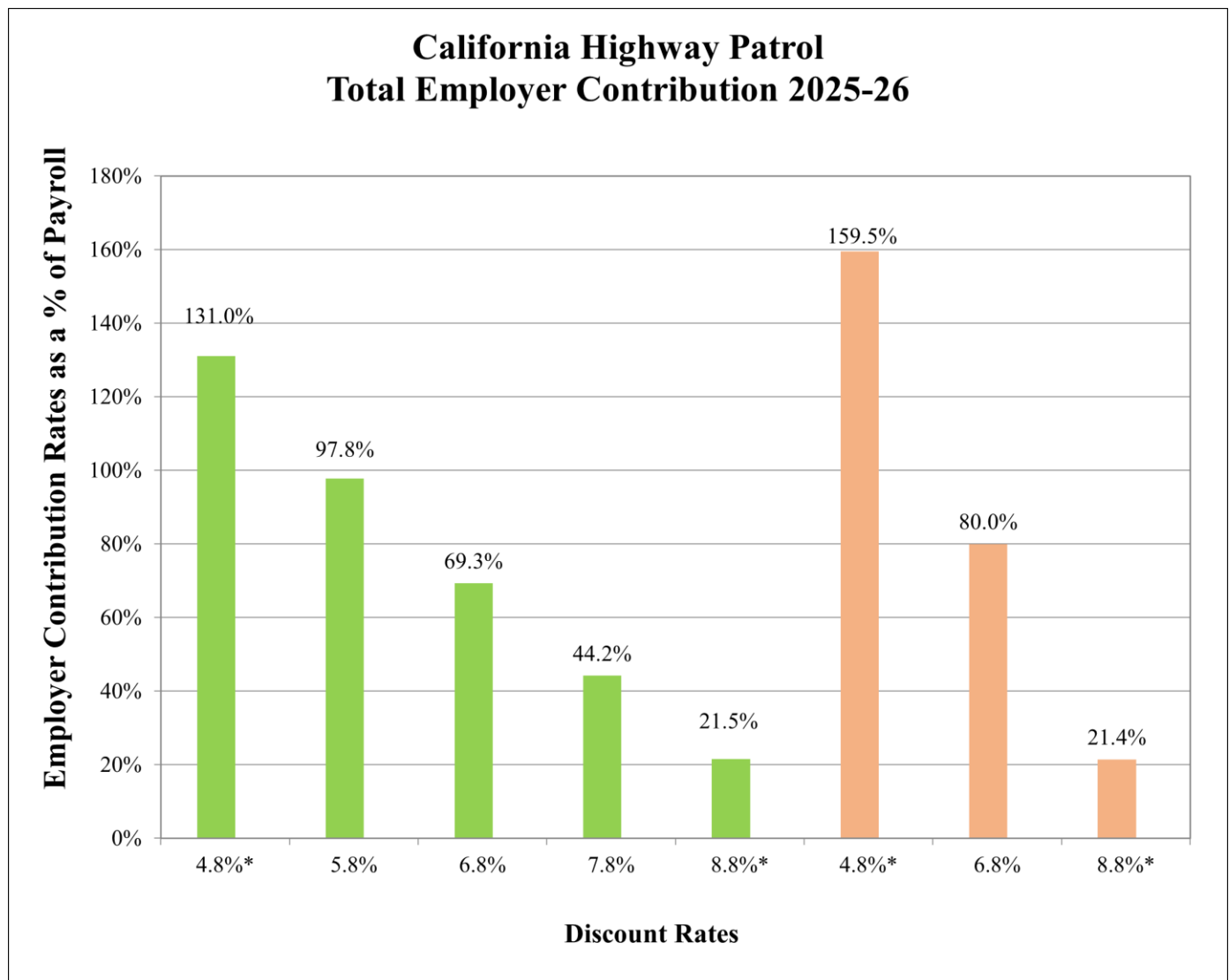
	Analysis of discount rate sensitivity based on current amortization method (varies from 9 to 24 years) or normal cost if in a surplus position
	Analysis of discount rate sensitivity based on amortization of UAL over EARSP (11 years)
*	Required by Government Code section 20229

Discount Rate Sensitivity (continued)



	Analysis of discount rate sensitivity based on current amortization method (varies from 9 to 24 years) or normal cost if in a surplus position
	Analysis of discount rate sensitivity based on amortization of UAL over EARSP (12 years)
*	Required by Government Code section 20229

Discount Rate Sensitivity (continued)



	Analysis of discount rate sensitivity based on current amortization method (varies from 1 to 24 years) or normal cost if in a surplus position
	Analysis of discount rate sensitivity based on amortization of UAL over EARSP (12 years)
*	Required by Government Code section 20229

Discount Rate Sensitivity (continued)

State Miscellaneous

Discount Rate Sensitivity (+/- 1% Change in Discount Rate)

Sensitivity Analysis						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
5.8%	14.8%	29.9%	44.6%	166,213,311,805	56,188,951,843	66.2%
6.8% (current discount rate)	10.0%	21.4%	31.3%	147,734,205,605	37,709,845,643	74.5%
7.8%	6.3%	13.1%	19.4%	132,328,191,096	22,303,831,134	83.1%

Government Code Section 20229 (+/- 2% Change in Discount Rate)

Current Amortization Method						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
4.8%	21.2%	38.7%	59.9%	188,561,715,542	78,537,355,580	58.3%
6.8% (current discount rate)	10.0%	21.4%	31.3%	147,734,205,605	37,709,845,643	74.5%
8.8%	3.6%	5.0%	8.6%	119,383,028,267	9,358,668,305	92.2%

Amortization of Unfunded Accrued Liability over EARSP (12 Years)						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
4.8%	21.2%	50.3%	71.4%	188,561,715,542	78,537,355,580	58.3%
6.8% (current discount rate)	10.0%	25.5%	35.4%	147,734,205,605	37,709,845,643	74.5%
8.8%	3.6%	4.5%	8.1%	119,383,028,267	9,358,668,305	92.2%

- The change in accrued liability due to the change in discount rate of +/-1% or +/-2% was amortized over 20 years as a level dollar amount (except for the "Amortization of Unfunded Accrued Liability over EARSP").
- In the case of a surplus, rates were calculated to equal the employer normal cost rate. This is based on a provision in the Public Employees' Pension Reform Act of 2013 (PEPRA) that requires a minimum employer contribution rate in combination with employee contributions shall not be less than the normal cost rate.
- Numbers may not add due to rounding.

Discount Rate Sensitivity (continued)

State Industrial

Discount Rate Sensitivity (+/- 1% Change in Discount Rate)

Sensitivity Analysis						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
5.8%	14.8%	18.9%	33.7%	7,485,549,795	2,095,323,894	72.0%
6.8% (current discount rate)	9.9%	10.6%	20.5%	6,568,807,317	1,178,581,416	82.1%
7.8%	6.3%	2.7%	8.9%	5,817,544,797	427,318,896	92.7%

Government Code Section 20229 (+/- 2% Change in Discount Rate)

Current Amortization Method						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
4.8%	21.1%	27.7%	48.8%	8,616,064,488	3,225,838,587	62.6%
6.8% (current discount rate)	9.9%	10.6%	20.5%	6,568,807,317	1,178,581,416	82.1%
8.8%	3.4%	0.0%	3.4%	5,195,819,354	(194,406,547)	103.7%

Amortization of Unfunded Accrued Liability over EARSP (12 Years)						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
4.8%	21.1%	39.6%	60.8%	8,616,064,488	3,225,838,587	62.6%
6.8% (current discount rate)	9.9%	15.3%	25.2%	6,568,807,317	1,178,581,416	82.1%
8.8%	3.4%	0.0%	3.4%	5,195,819,354	(194,406,547)	103.7%

- The change in accrued liability due to the change in discount rate of +/-1% or +/-2% was amortized over 20 years as a level dollar amount (except for the "Amortization of Unfunded Accrued Liability over EARSP").
- In the case of a surplus, rates were calculated to equal the employer normal cost rate. This is based on a provision in the Public Employees' Pension Reform Act of 2013 (PEPRA) that requires a minimum employer contribution rate in combination with employee contributions shall not be less than the normal cost rate.
- Numbers may not add due to rounding.

Discount Rate Sensitivity (continued)

State Safety

Discount Rate Sensitivity (+/- 1% Change in Discount Rate)

Sensitivity Analysis						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
5.8%	17.4%	17.6%	35.0%	22,304,315,981	5,808,243,051	74.0%
6.8% (current discount rate)	12.1%	9.6%	21.7%	19,668,665,673	3,172,592,743	83.9%
7.8%	8.0%	1.9%	9.9%	17,496,941,278	1,000,868,348	94.3%

Government Code Section 20229 (+/- 2% Change in Discount Rate)

Current Amortization Method						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
4.8%	24.4%	26.0%	50.4%	25,535,552,960	9,039,480,030	64.6%
6.8% (current discount rate)	12.1%	9.6%	21.7%	19,668,665,673	3,172,592,743	83.9%
8.8%	4.9%	0.0%	4.9%	15,690,647,741	(805,425,189)	105.1%

Amortization of Unfunded Accrued Liability over EARSP (11 Years)						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
4.8%	24.4%	39.2%	63.5%	25,535,552,960	9,039,480,030	64.6%
6.8% (current discount rate)	12.1%	14.2%	26.3%	19,668,665,673	3,172,592,743	83.9%
8.8%	4.9%	0.0%	4.9%	15,690,647,741	(805,425,189)	105.1%

- The change in accrued liability due to the change in discount rate of +/-1% or +/-2% was amortized over 20 years as a level dollar amount (except for the "Amortization of Unfunded Accrued Liability over EARSP").
- In the case of a surplus, rates were calculated to equal the employer normal cost rate. This is based on a provision in the Public Employees' Pension Reform Act of 2013 (PEPRA) that requires a minimum employer contribution rate in combination with employee contributions shall not be less than the normal cost rate.
- Numbers may not add due to rounding.

Discount Rate Sensitivity (continued)

State Peace Officers and Firefighters

Discount Rate Sensitivity (+/- 1% Change in Discount Rate)

Sensitivity Analysis						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
5.8%	27.0%	47.7%	74.7%	76,360,653,540	25,606,021,947	66.5%
6.8% (current discount rate)	18.5%	30.9%	49.4%	67,057,990,866	16,303,359,273	75.7%
7.8%	12.1%	14.8%	27.0%	59,456,698,346	8,702,066,753	85.4%

Government Code Section 20229 (+/- 2% Change in Discount Rate)

Current Amortization Method						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
4.8%	38.6%	65.7%	104.2%	87,878,655,024	37,124,023,431	57.8%
6.8% (current discount rate)	18.5%	30.9%	49.4%	67,057,990,866	16,303,359,273	75.7%
8.8%	7.3%	3.3%	10.6%	53,177,627,807	2,422,996,214	95.4%

Amortization of Unfunded Accrued Liability over EARSP (12 Years)						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
4.8%	38.6%	95.1%	133.6%	87,878,655,024	37,124,023,431	57.8%
6.8% (current discount rate)	18.5%	45.0%	63.5%	67,057,990,866	16,303,359,273	75.7%
8.8%	7.3%	4.3%	11.6%	53,177,627,807	2,422,996,214	95.4%

- The change in accrued liability due to the change in discount rate of +/-1% or +/-2% was amortized over 20 years as a level dollar amount (except for the "Amortization of Unfunded Accrued Liability over EARSP").
- In the case of a surplus, rates were calculated to equal the employer normal cost rate. This is based on a provision in the Public Employees' Pension Reform Act of 2013 (PEPRA) that requires a minimum employer contribution rate in combination with employee contributions shall not be less than the normal cost rate.
- Numbers may not add due to rounding.

Discount Rate Sensitivity (continued)

California Highway Patrol

Discount Rate Sensitivity (+/- 1% Change in Discount Rate)

Sensitivity Analysis						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
5.8%	27.3%	70.5%	97.8%	21,112,938,396	8,289,929,547	60.7%
6.8% (current discount rate)	17.9%	51.4%	69.3%	18,519,420,631	5,696,411,782	69.2%
7.8%	10.9%	33.3%	44.2%	16,403,064,599	3,580,055,750	78.2%

Government Code Section 20229 (+/- 2% Change in Discount Rate)

Current Amortization Method						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
4.8%	40.1%	90.9%	131.0%	24,329,244,433	11,506,235,584	52.7%
6.8% (current discount rate)	17.9%	51.4%	69.3%	18,519,420,631	5,696,411,782	69.2%
8.8%	5.6%	15.9%	21.5%	14,656,713,767	1,833,704,918	87.5%

Amortization of Unfunded Accrued Liability over EARSP (12 Years)						
As of June 30, 2024	Employer Normal Cost	Unfunded Liability Rate	Total Employer Rate	Accrued Liability	Unfunded Accrued Liability	Funded Status
4.8%	40.1%	119.4%	159.5%	24,329,244,433	11,506,235,584	52.7%
6.8% (current discount rate)	17.9%	62.1%	80.0%	18,519,420,631	5,696,411,782	69.2%
8.8%	5.6%	15.9%	21.4%	14,656,713,767	1,833,704,918	87.5%

- The change in accrued liability due to the change in discount rate of +/-1% or +/-2% was amortized over 20 years as a level dollar amount (except for the "Amortization of Unfunded Accrued Liability over EARSP").
- In the case of a surplus, rates were calculated to equal the employer normal cost rate. This is based on a provision in the Public Employees' Pension Reform Act of 2013 (PEPRA) that requires a minimum employer contribution rate in combination with employee contributions shall not be less than the normal cost rate.
- Numbers may not add due to rounding.

Mortality Rate Sensitivity

The following tables show key valuation results under two alternate longevity scenarios, namely assuming rates of post-retirement mortality are 10% lower or 10% higher than the current mortality assumption. This type of analysis highlights the impact on the plans of improving or worsening mortality over the long term.

State Miscellaneous

As of June 30, 2024	Accrued Liability	Market Value of Assets	Unfunded Accrued Liability/(Surplus)	Funded Status	Total Normal Cost
10% lower mortality rates	\$151,236,454,239	\$110,024,359,962	\$41,212,094,277	72.7%	17.70%
Current mortality rates	147,734,205,605	110,024,359,962	37,709,845,643	74.5%	17.41%
10% higher mortality rates	144,532,170,130	110,024,359,962	34,507,810,168	76.1%	17.14%

State Industrial

As of June 30, 2024	Accrued Liability	Market Value of Assets	Unfunded Accrued Liability/(Surplus)	Funded Status	Total Normal Cost
10% lower mortality rates	\$6,705,355,020	\$5,390,225,901	\$1,315,129,119	80.4%	18.87%
Current mortality rates	6,568,807,317	5,390,225,901	1,178,581,416	82.1%	18.57%
10% higher mortality rates	6,443,359,449	5,390,225,901	1,053,133,548	83.7%	18.29%

State Safety

As of June 30, 2024	Accrued Liability	Market Value of Assets	Unfunded Accrued Liability/(Surplus)	Funded Status	Total Normal Cost
10% lower mortality rates	\$20,072,410,846	\$16,496,072,930	\$3,576,337,916	82.2%	23.40%
Current mortality rates	19,668,665,673	16,496,072,930	3,172,592,743	83.9%	23.06%
10% higher mortality rates	19,297,756,202	16,496,072,930	2,801,683,272	85.5%	22.75%

State Peace Officers & Firefighters

As of June 30, 2024	Accrued Liability	Market Value of Assets	Unfunded Accrued Liability/(Surplus)	Funded Status	Total Normal Cost
10% lower mortality rates	\$68,173,677,575	\$50,754,631,593	\$17,419,045,982	74.4%	30.79%
Current mortality rates	67,057,990,866	50,754,631,593	16,303,359,273	75.7%	30.45%
10% higher mortality rates	66,027,215,671	50,754,631,593	15,272,584,078	76.9%	30.13%

California Highway Patrol

As of June 30, 2024	Accrued Liability	Market Value of Assets	Unfunded Accrued Liability/(Surplus)	Funded Status	Total Normal Cost
10% lower mortality rates	\$18,822,740,645	\$12,823,008,849	\$5,999,731,796	68.1%	31.81%
Current mortality rates	18,519,420,631	12,823,008,849	5,696,411,782	69.2%	31.46%
10% higher mortality rates	18,239,414,551	12,823,008,849	5,416,405,702	70.3%	31.13%

Inflation Rate Sensitivity

The following tables show key valuation results under two alternate inflation rate scenarios, namely assuming the price inflation rate is 1% lower or 1% higher than the current assumption of 2.5%. For this analysis, the real rate of return is held constant at the current assumption of 4.5%. This type of analysis highlights the impact on the plans of higher or lower inflation over the long term.

State Miscellaneous

As of June 30, 2024	Accrued Liability	Market Value of Assets	Unfunded Accrued Liability/(Surplus)	Funded Status	Total Normal Cost
-1% inflation rate	\$152,336,181,220	\$110,024,359,962	\$42,311,821,258	72.2%	18.30%
Current inflation rate	147,734,205,605	110,024,359,962	37,709,845,643	74.5%	17.41%
+1% inflation rate	136,300,214,263	110,024,359,962	26,275,854,301	80.7%	15.70%

State Industrial

As of June 30, 2024	Accrued Liability	Market Value of Assets	Unfunded Accrued Liability/(Surplus)	Funded Status	Total Normal Cost
-1% inflation rate	\$6,791,824,588	\$5,390,225,901	\$1,401,598,687	79.4%	19.54%
Current inflation rate	6,568,807,317	5,390,225,901	1,178,581,416	82.1%	18.57%
+1% inflation rate	6,028,415,544	5,390,225,901	638,189,643	89.4%	16.71%

State Safety

As of June 30, 2024	Accrued Liability	Market Value of Assets	Unfunded Accrued Liability/(Surplus)	Funded Status	Total Normal Cost
-1% inflation rate	\$20,350,021,095	\$16,496,072,930	\$3,853,948,165	81.1%	24.27%
Current inflation rate	19,668,665,673	16,496,072,930	3,172,592,743	83.9%	23.06%
+1% inflation rate	18,053,301,294	16,496,072,930	1,557,228,364	91.4%	20.73%

State Peace Officers & Firefighters

As of June 30, 2024	Accrued Liability	Market Value of Assets	Unfunded Accrued Liability/(Surplus)	Funded Status	Total Normal Cost
-1% inflation rate	\$69,422,428,017	\$50,754,631,593	\$18,667,796,424	73.1%	32.06%
Current inflation rate	67,057,990,866	50,754,631,593	16,303,359,273	75.7%	30.45%
+1% inflation rate	61,408,647,318	50,754,631,593	10,654,015,725	82.7%	27.22%

California Highway Patrol

As of June 30, 2024	Accrued Liability	Market Value of Assets	Unfunded Accrued Liability/(Surplus)	Funded Status	Total Normal Cost
-1% inflation rate	\$19,175,202,020	\$12,823,008,849	\$6,352,193,171	66.9%	33.04%
Current inflation rate	18,519,420,631	12,823,008,849	5,696,411,782	69.2%	31.46%
+1% inflation rate	16,960,153,845	12,823,008,849	4,137,144,996	75.6%	28.14%

Maturity Measures

As pension plans mature they become more sensitive to risks. To understand plan maturity and how it affects the ability of a pension plan sponsor to tolerate risk, it is important to understand how a plan is impacted by investment return volatility, other economic variables and changes in longevity or other demographic assumptions.

One measure of a plan's maturity is the ratio of retiree liability to total liability. A pension plan in its infancy will have a very low ratio of retiree liability to total liability. As the plan matures, the ratio increases. A mature plan will often have a ratio above 60-65%. For both CalPERS and many other retirement systems in the United States, these ratios have been steadily increasing in recent years.

Ratio of Retiree Accrued Liability to Total Accrued Liability

Plan	June 30, 2023			June 30, 2024		
	Retiree Accrued Liability	Total Accrued Liability	Ratio	Retiree Accrued Liability	Total Accrued Liability	Ratio
State Miscellaneous	\$86,677,074,331	\$142,014,028,700	61.0%	\$89,633,949,309	\$147,734,205,605	60.7%
State Industrial	\$3,384,775,405	\$6,219,461,196	54.4%	3,567,149,284	6,568,807,317	54.3%
State Safety	\$10,757,130,998	\$18,524,055,315	58.1%	11,308,938,590	19,668,665,673	57.5%
State Peace Officers & Firefighters	\$42,466,270,151	\$63,916,044,325	66.4%	44,694,443,977	67,057,990,866	66.7%
California Highway Patrol	\$11,352,967,324	\$17,455,908,560	65.0%	12,077,017,505	18,519,420,631	65.2%

Another measure of maturity is the ratio of actives to retirees, also called the Support Ratio. A pension plan in its infancy will have a very high ratio of active to retired members. As the plan matures, and members retire, the ratio declines. A mature plan will often have a ratio near or below one.

Support Ratio

Plan	June 30, 2023			June 30, 2024		
	Number of Actives	Number of Retirees	Support Ratio	Number of Actives	Number of Retirees	Support Ratio
State Miscellaneous	184,297	213,206	86.4%	189,524	216,324	87.6%
State Industrial	11,609	18,014	64.4%	11,807	18,502	63.8%
State Safety	26,371	31,293	84.3%	27,868	32,188	86.6%
State Peace Officers & Firefighters	41,482	49,558	83.7%	41,098	51,227	80.2%
California Highway Patrol	6,458	10,252	63.0%	6,555	10,517	62.3%

Maturity Measures (continued)

Volatility ratios are another measure for assessing plan maturity.

The actuarial calculations supplied in this communication are based on a number of assumptions about long-term demographic and economic behavior. Unless these assumptions (e.g., terminations, deaths, disabilities, retirements, salary growth, and investment return) are exactly realized each year, there will be differences on a year-to-year basis. The year-to-year differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise the employer's rates from one year to the next. Therefore, the rates will inevitably fluctuate, especially due to fluctuations in investment return.

Asset Volatility Ratio

Plans that have higher asset-to-payroll ratios produce more volatile employer rates due to investment return. For example, a plan with an asset-to-payroll ratio of 8 may experience twice the contribution volatility due to investment return volatility than a plan with an asset-to-payroll ratio of 4. Shown below is the asset volatility ratio, a measure of the plan's current rate volatility. It should be noted that this ratio is a current measure. It increases over time but generally tends to stabilize as the plan matures.

Liability Volatility Ratio

Plans that have higher liability-to-payroll ratios produce more volatile employer rates due to investment return and changes in liability. For example, a plan with a liability-to-payroll ratio of 12 is expected to have twice the contribution volatility of a plan with a liability-to-payroll ratio of 6. The liability volatility ratio is also included in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility. The asset volatility ratio, described above, will tend to move closer to the liability volatility ratio as the plan matures.

Rate Volatility

	Market Value of Assets without Receivables	Annual Covered Payroll	Asset Volatility Ratio	Accrued Liability	Liability Volatility Ratio
Plan	(1)	(2)	(1)÷(2)	(3)	(3)÷(2)
State Miscellaneous	\$109,900,948,947	\$16,663,106,441	6.6	\$147,734,205,605	8.9
State Industrial	5,382,515,972	891,380,947	6.0	6,568,807,317	7.4
State Safety	16,488,592,746	2,700,997,810	6.1	19,668,665,673	7.3
State Peace Officers & Firefighters	50,720,613,578	4,243,923,869	12.0	67,057,990,866	15.8
California Highway Patrol	12,817,563,791	1,014,360,803	12.6	18,519,420,631	18.3

Maturity Measures History

State Miscellaneous

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2020	60.4%	88.4%	6.4	9.2
06/30/2021	60.7%	86.7%	7.6	9.5
06/30/2022	60.7%	86.1%	6.5	9.4
06/30/2023	61.0%	86.4%	6.5	9.2
06/30/2024	60.7%	87.6%	6.6	8.9

State Industrials

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2020	52.2%	74.1%	5.3	6.8
06/30/2021	53.6%	68.7%	6.5	7.3
06/30/2022	53.6%	65.3%	5.7	7.4
06/30/2023	54.4%	64.4%	5.9	7.4
06/30/2024	54.3%	63.8%	6.0	7.4

State Safety

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2020	56.0%	105.0%	5.0	6.2
06/30/2021	56.8%	97.5%	6.2	6.8
06/30/2022	57.2%	90.1%	5.9	7.4
06/30/2023	58.1%	84.3%	6.1	7.6
06/30/2024	57.5%	86.6%	6.1	7.3

State Peace Officers & Firefighters

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2020	63.0%	96.0%	10.0	14.1
06/30/2021	64.9%	89.8%	12.4	15.5
06/30/2022	64.9%	86.9%	10.6	15.3
06/30/2023	66.4%	83.7%	11.3	15.7
06/30/2024	66.7%	80.2%	12.0	15.8

California Highway Patrol

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2020	62.0%	73.8%	10.3	16.0
06/30/2021	62.6%	68.1%	13.4	17.8
06/30/2022	63.3%	66.8%	12.0	18.2
06/30/2023	65.0%	63.0%	12.6	18.8
06/30/2024	65.2%	62.3%	12.6	18.3

Funded Status – Low-Default-Risk Basis

Actuarial Standard of Practice (ASOP) No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, requires the disclosure of a low-default-risk obligation measure (LDROM) of benefit costs accrued as of the valuation date using a discount rate based on the yields of high quality fixed income securities with cash flows that replicate expected benefit payments. Conceptually, this measure represents the level at which financial markets would value the accrued plan costs, and would be approximately equal to the cost of a portfolio of low-default-risk bonds with similar financial characteristics to accrued plan costs.

As permitted in ASOP No. 4, the Actuarial Office uses the Entry Age Actuarial Cost Method to calculate the LDROM. This methodology is in line with the measure of “benefit entitlements” calculated by the Bureau of Economic Analysis and used by the Federal Reserve to report the indebtedness due to pensions of plan sponsors and, conversely, the household wealth due to pensions of plan members.

As shown below, the discount rate used for the LDROM is 5.35%, which is the Standard FTSE Pension Liability Index¹ discount rate as of June 30, 2024.

	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol
Discount Rate	5.35%	5.35%	5.35%	5.35%	5.35%
1) Accrued Liability – Low-Default-Risk Basis (LDROM)					
a) Active Members	\$66,735,326,288	\$2,785,801,138	\$9,170,843,911	\$27,258,256,957	\$8,038,565,555
b) Transferred Members	3,473,716,973	940,552,392	859,816,987	846,214,141	71,312,214
c) Separated Members	3,383,406,835	138,726,239	594,077,552	679,294,838	171,418,707
d) Members and Beneficiaries Receiving Payments	102,143,412,999	4,099,318,562	13,050,671,777	52,448,941,650	14,191,417,941
e) Total	\$175,735,863,095	\$7,964,398,331	\$23,675,410,227	\$81,232,707,586	\$22,472,714,417
2) Market Value of Assets (MVA)	110,024,359,962	5,390,225,901	16,496,072,930	50,754,631,593	12,823,008,849
3) Unfunded Accrued Liability – Low Default-Risk Basis [(1e)-(2)]	\$65,711,503,133	\$2,574,172,430	\$7,179,337,297	\$30,478,075,993	\$9,649,705,568
4) Unfunded Accrued Liability – Funding Policy Basis	37,709,845,643	1,178,581,416	3,172,592,743	16,303,359,273	5,696,411,782
5) Present Value of Unearned Investment Risk Premium [(3)-(4)]	\$28,001,657,490	\$1,395,591,014	\$4,006,744,554	\$14,174,716,720	\$3,953,293,786

The difference between the unfunded liabilities on a low-default-risk basis and on the funding policy basis represents the present value of the investment risk premium that must be earned in future years to keep future contributions for currently accrued plan costs at the levels anticipated by the funding policy.

Benefit security for members of the plan relies on a combination of the assets in the plan, the investment income generated from those assets, and the ability of the plan sponsor to make necessary future contributions. If future returns fall short of 6.8%, benefit security could be at risk without higher than currently anticipated future contributions.

The funded status on a low-default-risk basis is not appropriate for assessing the sufficiency of plan assets to cover the cost of settling the plan’s benefit obligations, nor is it appropriate for assessing the need for future contributions (see Funded Status – Funding Policy Basis).

¹ This index is based on a yield curve of hypothetical AA-rated zero coupon corporate bonds whose maturities range from 6 months to 30 years. The index represents the single discount rate that would produce the same present value as discounting a standardized set of liability cash flows for a fully open pension plan using the yield curve. The liability cash flows are reasonably consistent with the pattern of benefits expected to be paid from the entire Public Employees’ Retirement Fund for current and former plan members. A different index, hence a different discount rate, may be needed to measure the LDROM for a subset of the fund, such as a single rate plan or a group of retirees.

Appendices

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Appendix A – Statement of Actuarial Methods and Assumptions

Actuarial Data

As stated in the Actuarial Certification, the data, which serves as the basis for this valuation, has been obtained from various CalPERS databases. We have reviewed the valuation data and believe that it is reasonable and appropriate in aggregate. We are unaware of any potential data issues that would have a material effect on the results of this valuation, except that data does not always contain the latest salary information for former members now in reciprocal systems and does not recognize the potential for unusually large salary deviation in certain cases such as elected officials. Therefore, salary information in these cases may not be accurate. These situations are relatively infrequent, however, and when they do occur, they generally do not have a material impact on the employer contribution rates.

Actuarial Methods

Actuarial Cost Method

The actuarial cost method used for this report is the Entry Age Actuarial Cost Method. Under this method, projected benefits are determined for all members and the associated liabilities are spread in a manner that produces level annual cost as a percentage of pay in each year from the member's entry age to their assumed retirement age on the valuation date. The cost allocated to the current fiscal year is called the normal cost.

The actuarial accrued liability for active members is then calculated as the portion of the total cost of the plan allocated to prior years. The actuarial accrued liability for members currently receiving benefits and for members entitled to deferred benefits is equal to the present value of the benefits expected to be paid. No normal costs are applicable for these participants.

CalPERS uses an in-house proprietary actuarial model for calculating plan costs. We believe this model is fit for its intended purpose and meets all applicable Actuarial Standards of Practice. Furthermore, the actuarial results of our model are independently confirmed periodically by outside auditing actuaries. The actuarial assumptions used are internally consistent and the generated results are reasonable.

Amortization of Unfunded Actuarial Accrued Liability

The excess of the total actuarial accrued liability over the market value of plan assets is called the unfunded actuarial accrued liability (UAL). Funding requirements are determined by adding the normal cost and a payment toward the UAL. The UAL payment is equal to the sum of individual amortization payments, each representing a different source of UAL for a given measurement period.

Amortization payments are determined according to the CalPERS amortization policy. The board adopted a new policy effective for the June 30, 2019 actuarial valuation. The new policy applies prospectively only; amortization bases (sources of UAL) established prior to the June 30, 2019 valuation will continue to be amortized according to the prior policy.

Appendix A – Statement of Actuarial Methods and Assumptions

Actuarial Methods (continued)

Prior Policy (Bases Established prior to June 30, 2019)

Amortization payments are determined as a level percentage of payroll whereby the payment increases each year at an escalation rate. Gains or losses are amortized over a fixed 30-year period with a 5-year ramp up at the beginning and a 5-year ramp down at the end of the amortization period. All changes in liability due to plan amendments (other than golden handshakes) are amortized over a 20-year period with no ramp. Changes in actuarial assumptions or changes in actuarial methodology are amortized over a 20-year period with a 5-year ramp up at the beginning and a 5-year ramp down at the end of the amortization period. Changes in unfunded accrued liability due to a Golden Handshake will be amortized over a period of five years. Bases established prior to June 30, 2013 may be amortized differently. A summary is provided in the following table:

	Source				
	(Gain)/Loss		Assumption/ Method Change	Benefit Change	Golden Handshake
	Investment	Non- investment			
Amortization Period	30 Years	30 Years	20 Years	20 Years	5 Years
Escalation Rate					
- Active Plans	2.80%	2.80%	2.80%	2.80%	2.80%
- Inactive Plans	0%	0%	0%	0%	0%
Ramp Up	5	5	5	0	0
Ramp Down	5	5	5	0	0

The 5-year ramp up means that the payments in the first four years of the amortization period are 20%, 40%, 60% and 80% of the “full” payment which begins in year five. The 5-year ramp down means that the reverse is true in the final four years of the amortization period.

Current Policy (Bases Established on or after June 30, 2019)

Amortization payments are determined as a level dollar amount. Investment gains or losses are amortized over a fixed 20-year period with a 5-year ramp up at the beginning of the amortization period. Non-investment gains or losses are amortized over a fixed 20-year period with no ramps. All changes in liability due to plan amendments (other than golden handshakes) are amortized over a 20-year period with no ramps. Changes in actuarial assumptions or changes in actuarial methodology are amortized over a 20-year period with no ramps. Changes in unfunded accrued liability due to a Golden Handshake are amortized over a period of five years. A summary is provided in the table below:

	Source				
	(Gain)/Loss		Assumption/ Method Change	Benefit Change	Golden Handshake
	Investment	Non- investment			
Amortization Period	20 Years	20 Years	20 Years	20 Years	5 Years
Escalation Rate	0%	0%	0%	0%	0%
Ramp Up	5	0	0	0	0
Ramp Down	0	0	0	0	0

Appendix A – Statement of Actuarial Methods and Assumptions

Actuarial Methods (continued)

Exceptions for Inconsistencies

An exception to the amortization rules above is used whenever their application results in inconsistencies. In these cases, a “fresh start” approach is used. This means that the current unfunded actuarial liability is projected and amortized over a set number of years. For example, a fresh start is needed in the following situations:

- When a negative payment would be required on a positive unfunded actuarial liability; or
- When the payment would completely amortize the total unfunded liability in a very short time period, and results in a large change in the employer contribution requirement.

It should be noted that the actuary may determine that a fresh start is necessary under other circumstances. In all cases of a fresh start, the period is set by the actuary at what is deemed appropriate; however, the period will not be greater than 20 years.

The Term Insurance Method is used for the State Group Term Life Insurance Program. The required contribution for the coming fiscal year is the expected benefit payments for the fiscal year plus any deficiency (or minus any excess) in the transfer for the previous fiscal year.

Purchasing Power Protection Act (PPPA) Method

PPPA benefits are cost-of-living adjustments intended to maintain the individual's current retirement benefit at 75% of the original benefit at retirement adjusted for inflation since retirement. The PPPA benefit is paid, if necessary, in addition to any other cost-of-living adjustment provided under the terms of the plan

For the State plans, the total annual outlay for PPPA benefits is limited by State statute to earnings of up to 1.1% of accumulated member contributions. If this annual outlay is insufficient to provide the PPPA benefits in a given fiscal year, the 75% maintenance target would be proportionately reduced. Since the inception of the PPPA benefit program, 1.1% has proved more than sufficient to provide the 75% percent maintenance. Under the inflation assumption of 2.3% compounded annually, the 1.1% appears to remain more than sufficient in the foreseeable future.

Internal Revenue Code Section 415

The valuation reflects the limitations on benefits imposed by Internal Revenue Code section 415. The current valuation is based on the IRC 415(b) dollar limit for 2024 of \$275,000.

Internal Revenue Code Section 401(a)(17)

The valuation reflects the limitations on pensionable compensation imposed by Internal Revenue Code section 401(a)(17). The current valuation is based on the IRC 401(a)(17) limit for 2024 of \$345,000,

Appendix A – Statement of Actuarial Methods and Assumptions

Actuarial Methods (continued)

PEPRA Assumptions

The Public Employees' Pension Reform Act of 2013 (PEPRA) mandated new benefit formulas and member contributions for members hired on or after January 1, 2013, as defined by PEPRA. Different assumptions for PEPRA members are disclosed below.

Asset Valuation Method

The Actuarial Value of Assets is set equal to the Market Value of Assets. Asset values include accounts receivable.

Actuarial Assumptions

In 2021, CalPERS completed its most recent asset liability management study incorporating actuarial assumptions and strategic asset allocation. In November 2021, the board adopted changes to the asset allocation that increased the expected volatility of returns. The adopted asset allocation was expected to have a long-term blended return that continued to support a discount rate assumption of 6.8%. The board also approved several changes to the demographic assumptions that more closely aligned with actual experience.

For more details and additional rationale for the selection of the actuarial assumptions, please refer to the [2021 CalPERS Experience Study and Review of Actuarial Assumptions](#) that can be found on the CalPERS website under: Forms and Publications. Click on "View All" and search for Experience Study.

All actuarial assumptions (except the discount rates and price inflation assumption used for the accrued liability on a termination basis) represent an estimate of future experience rather than observations of the estimates inherent in market data.

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Appendix A – Statement of Actuarial Methods and Assumptions

Economic Assumptions

Discount Rate

6.8% compounded annually (net of investment and administrative expenses), as prescribed by the board.

Salary Growth

Annual increases vary by entry age and duration of service. A sample of assumed increases is shown below. Wage inflation assumption in the valuation year (2.8% for 2024) is added to these factors for total salary growth.

State Miscellaneous Tier 1 & Tier 2

Duration of Service	Entry Age		
	20	30	40
0	6.2%	4.0%	3.5%
3	5.2%	3.3%	2.6%
5	4.6%	3.0%	2.1%
10	2.6%	1.5%	1.0%
15	1.8%	1.2%	0.8%
20	1.3%	0.9%	0.7%
25	0.9%	0.7%	0.5%
30	0.7%	0.5%	0.4%

State Industrial

Duration of Service	Entry Age		
	20	30	40
0	5.8%	5.5%	5.5%
3	4.7%	3.9%	3.9%
5	4.1%	3.1%	3.1%
10	2.7%	1.6%	1.6%
15	1.8%	1.1%	1.1%
20	1.2%	0.8%	0.8%
25	0.8%	0.6%	0.6%
30	0.5%	0.4%	0.4%

State Safety, POFF and CHP

Duration of Service	State Safety	POFF	CHP
0	5.1%	11.5%	12.0%
3	3.3%	6.6%	5.2%
5	2.3%	4.3%	2.5%
10	1.1%	1.4%	1.2%
15	1.0%	1.1%	1.4%
20	0.9%	1.2%	2.3%
25	0.8%	1.3%	2.3%
30	0.7%	1.3%	1.5%

Price Inflation

2.30% compounded annually

Wage Inflation

2.80% compounded annually

Payroll Growth

2.80% compounded annually (used in projecting the payroll over which unfunded accrued liability is amortized for amortization bases established prior to June 30, 2019)

Appendix A – Statement of Actuarial Methods and Assumptions

Demographic Assumptions

General Mortality

The mortality assumptions are based on mortality rates resulting from the most recent CalPERS Experience Study adopted by the CalPERS Board in November 2021. For purposes of the mortality rates, the rates incorporate generational mortality to capture on-going mortality improvement. Generational mortality explicitly assumes that members born more recently will live longer than the members born before them thereby capturing the mortality improvement seen in the past and expected continued improvement. For more details, please refer to the 2021 Experience Study report that can be found on the CalPERS website.

See Plan Specific Actuarial Assumptions for Pre-Retirement Mortality tables which vary by plan.

Post-Retirement Mortality

Rates vary by age, type of retirement, and gender. See sample rates in table below. These rates are used for all plans.

	Healthy Recipients		Non-Industrial Disabled (Not Job-Related)		Industrial Disabled (Job-Related)	
Age	Male	Female	Male	Female	Male	Female
50	0.00266	0.00199	0.01701	0.01439	0.00430	0.00311
55	0.00390	0.00325	0.02210	0.01734	0.00621	0.00549
60	0.00578	0.00455	0.02708	0.01962	0.00944	0.00868
65	0.00857	0.00612	0.03334	0.02276	0.01394	0.01190
70	0.01333	0.00996	0.04001	0.02910	0.02163	0.01858
75	0.02391	0.01783	0.05376	0.04160	0.03446	0.03134
80	0.04371	0.03403	0.07936	0.06111	0.05853	0.05183
85	0.08274	0.06166	0.11561	0.09385	0.10137	0.08045
90	0.14539	0.11086	0.16608	0.14396	0.16584	0.12434
95	0.24664	0.20364	0.24664	0.20364	0.24664	0.20364
100	0.36198	0.31582	0.36198	0.31582	0.36198	0.31582
105	0.52229	0.44679	0.52229	0.44679	0.52229	0.44679
110	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

- The post-retirement mortality rates above are for 2017 and are projected generationally for future years using 80% of the Society of Actuaries' Scale MP-2020.

Marital Status

For active members, it is assumed the following are married upon retirement.

Plan	Percent Married
State Miscellaneous	70%
State Industrial	70%
State Safety	70%
State Peace Officers & Firefighters	80%
California Highway Patrol	85%

Age of Spouse

It is assumed that female spouses are 3 years younger than male spouses.

Separated Members

Separated members who are not vested are assumed to refund immediately. Separated members who are vested are assumed to retire at age 59 (State Miscellaneous and Industrial) or age 54 (State Safety, State Peace Officers and Firefighters, and California Highway Patrol).

Appendix A – Statement of Actuarial Methods and Assumptions

Miscellaneous Loading Factors

Credit for Unused Sick Leave

Total years of service is increased by 1% for employees in plans with the Credit for Unused Sick Leave provision.

Norris Decision (Best Factors)

Projected benefit amounts for employees hired prior to July 1, 1982 are increased to reflect the use of “Best Factors” in the calculation of optional benefit forms. This is due to a 1983 Supreme Court decision, known as the Norris Decision, which required males and females to be treated equally in the determination of benefit amounts. Consequently, anyone already employed at that time is given the best possible conversion factor when optional benefits are determined. No loading is necessary for employees hired after July 1, 1982.

Miscellaneous Assumptions

Tier 2 Members electing Tier 1 benefits

In general, Tier 2 members of both the State Miscellaneous and State Industrial plans have the right to convert their Tier 2 service to Tier 1 service provided they make up the shortfall in their accumulated contributions with interest. In this valuation, we have assumed that all Tier 2 members eligible to convert their Tier 2 service to Tier 1 service will elect to do so.

Appendix A – Statement of Actuarial Methods and Assumptions

Plan Specific Actuarial Assumptions

State Miscellaneous Tier 1

Service Retirement - Classic Members

Rates vary by age and service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.014	0.011	0.010	0.013	0.014	0.014	0.015
52	0.019	0.013	0.012	0.015	0.015	0.015	0.016
54	0.014	0.014	0.015	0.021	0.024	0.027	0.030
56	0.029	0.033	0.031	0.056	0.079	0.105	0.157
58	0.026	0.035	0.034	0.061	0.085	0.115	0.169
60	0.017	0.036	0.063	0.113	0.126	0.162	0.189
62	0.076	0.115	0.118	0.188	0.197	0.238	0.284
65	0.141	0.164	0.155	0.232	0.218	0.232	0.251
70	0.151	0.226	0.246	0.300	0.278	0.255	0.266
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement - PEPRA Members

Rates vary by age and service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52	0.009	0.008	0.009	0.013	0.014	0.016	0.022
54	0.008	0.012	0.014	0.021	0.025	0.027	0.034
56	0.016	0.025	0.030	0.043	0.058	0.074	0.116
58	0.020	0.032	0.035	0.056	0.067	0.091	0.128
60	0.030	0.050	0.060	0.095	0.113	0.140	0.197
62	0.070	0.102	0.122	0.177	0.210	0.248	0.285
65	0.081	0.142	0.158	0.221	0.224	0.271	0.310
70	0.140	0.176	0.184	0.223	0.276	0.299	0.299
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Termination with Refund

Rates vary by entry age and service. See sample rates in the table below.

Duration of Service	Entry Age									
	Male					Female				
	20	25	30	35	40	20	25	30	35	40
0	0.16985	0.15937	0.14189	0.12441	0.11834	0.16943	0.15699	0.13627	0.11554	0.11293
1	0.14939	0.13949	0.12298	0.10647	0.09736	0.15663	0.14497	0.12554	0.10610	0.09781
2	0.12263	0.11406	0.09977	0.08548	0.07613	0.13191	0.12212	0.10582	0.08952	0.07981
3	0.09392	0.08700	0.07548	0.06395	0.05610	0.10177	0.09431	0.08186	0.06942	0.06102
4	0.06692	0.06164	0.05286	0.04407	0.03850	0.07189	0.06664	0.05790	0.04916	0.04333
5	0.04425	0.04041	0.03402	0.02762	0.02429	0.04647	0.04303	0.03730	0.03157	0.02835
6	0.02743	0.02474	0.02025	0.01577	0.01411	0.02794	0.02579	0.02221	0.01863	0.01722
7	0.01660	0.01475	0.01166	0.00857	0.00784	0.01659	0.01525	0.01303	0.01080	0.01017
8	0.01074	0.00945	0.00729	0.00514	0.00469	0.01094	0.01007	0.00862	0.00716	0.00652
9	0.00819	0.00724	0.00565	0.00406	0.00350	0.00879	0.00815	0.00709	0.00603	0.00502
10	0.00729	0.00653	0.00526	0.00399	0.00322	0.00811	0.00758	0.00670	0.00581	0.00449
15	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Appendix A – Statement of Actuarial Methods and Assumptions

Plan Specific Actuarial Assumptions (continued)

State Miscellaneous Tier 1 (continued)

Termination with Vested Benefits

Rates vary by entry age and service. See sample rates in the table below.

Duration of Service	Entry Age									
	Male					Female				
	20	25	30	35	40	20	25	30	35	40
5	0.04657	0.04657	0.03951	0.03245	0.02653	0.05259	0.05259	0.04556	0.03853	0.03160
6	0.04103	0.04103	0.03562	0.03021	0.02442	0.04847	0.04847	0.04180	0.03514	0.02900
7	0.03568	0.03568	0.03170	0.02771	0.02211	0.04351	0.04351	0.03759	0.03167	0.02582
8	0.03094	0.03094	0.02801	0.02507	0.01969	0.03848	0.03848	0.03336	0.02824	0.02246
9	0.02710	0.02710	0.02475	0.02241	0.01725	0.03398	0.03398	0.02945	0.02491	0.01924
10	0.02420	0.02420	0.02201	0.01982	0.01491	0.03027	0.03027	0.02600	0.02172	0.01639
14	0.01686	0.01686	0.01412	0.01138	0.00815	0.02020	0.02020	0.01618	0.01217	0.00972
15	0.01527	0.01527	0.01257	0.00986	0.00708	0.01822	0.01822	0.01453	0.01085	0.00900
19	0.01092	0.01092	0.00829	0.00565	0.00000	0.01239	0.01239	0.00945	0.00652	0.00000
20	0.01001	0.01001	0.00755	0.00509	0.00000	0.01127	0.01127	0.00836	0.00545	0.00000
24	0.00605	0.00605	0.00484	0.00000	0.00000	0.00685	0.00685	0.00506	0.00000	0.00000
25	0.00527	0.00527	0.00430	0.00000	0.00000	0.00601	0.00601	0.00457	0.00000	0.00000
29	0.00294	0.00294	0.00000	0.00000	0.00000	0.00411	0.00411	0.00000	0.00000	0.00000
30	0.00254	0.00254	0.00000	0.00000	0.00000	0.00376	0.00376	0.00000	0.00000	0.00000

- After termination with vested benefits, a miscellaneous member is assumed to retire at age 59 and a safety member at age 54.

Pre-Retirement Mortality and Disability

Rates vary by age and gender are displayed in the table below.

Attained Age	Non-Industrial Death (Not Job-Related)		Non-Industrial Disability (Not Job-Related)	
	Male	Female	Male	Female
20	0.00039	0.00014	0.00019	0.00030
25	0.00033	0.00013	0.00019	0.00031
30	0.00044	0.00019	0.00019	0.00044
35	0.00058	0.00029	0.00036	0.00079
40	0.00075	0.00039	0.00103	0.00150
45	0.00093	0.00054	0.00204	0.00291
50	0.00134	0.00081	0.00274	0.00403
55	0.00198	0.00123	0.00238	0.00292
60	0.00287	0.00179	0.00200	0.00238

The pre-retirement mortality rates above are from the 2017 base table. The base rates are then projected generationally using 80% of the Society of Actuaries' Scale MP-2020.

Appendix A – Statement of Actuarial Methods and Assumptions

Plan Specific Actuarial Assumptions (continued)

State Miscellaneous Tier 2

Service Retirement - Classic Members

Rates vary by age and service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.014	0.011	0.010	0.013	0.014	0.014	0.015
52	0.019	0.013	0.012	0.015	0.015	0.015	0.016
54	0.014	0.014	0.015	0.021	0.024	0.027	0.030
56	0.029	0.033	0.031	0.056	0.079	0.105	0.157
58	0.026	0.035	0.034	0.061	0.085	0.115	0.169
60	0.017	0.036	0.063	0.113	0.126	0.162	0.189
62	0.076	0.115	0.118	0.188	0.197	0.238	0.284
65	0.141	0.164	0.155	0.232	0.218	0.232	0.251
70	0.151	0.226	0.246	0.300	0.278	0.255	0.266
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement - PEPRA Members

Rates vary by age and service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52	0.009	0.008	0.009	0.013	0.014	0.016	0.022
54	0.008	0.012	0.014	0.021	0.025	0.027	0.034
56	0.016	0.025	0.030	0.043	0.058	0.074	0.116
58	0.020	0.032	0.035	0.056	0.067	0.091	0.128
60	0.030	0.050	0.060	0.095	0.113	0.140	0.197
62	0.070	0.102	0.122	0.177	0.210	0.248	0.285
65	0.081	0.142	0.158	0.221	0.224	0.271	0.310
70	0.140	0.176	0.184	0.223	0.276	0.299	0.299
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Termination with Refund

Rates vary by entry age and service. See sample rates in the table below.

Duration of Service	Entry Age									
	Male					Female				
	20	25	30	35	40	20	25	30	35	40
0	0.13873	0.13873	0.13873	0.13873	0.13873	0.13996	0.13996	0.13996	0.13996	0.13996
1	0.11679	0.11679	0.11679	0.11679	0.11679	0.11571	0.11571	0.11571	0.11571	0.11571
2	0.09536	0.09536	0.09536	0.09536	0.09536	0.10125	0.10125	0.10125	0.10125	0.10125
3	0.07470	0.07470	0.07470	0.07470	0.07470	0.08274	0.08274	0.08274	0.08274	0.08274
4	0.05523	0.05523	0.05523	0.05523	0.05523	0.06250	0.06250	0.06250	0.06250	0.06250
5	0.03777	0.03777	0.03777	0.03777	0.03777	0.04293	0.04293	0.04293	0.04293	0.04293
6	0.02340	0.02340	0.02340	0.02340	0.02340	0.02622	0.02622	0.02622	0.02622	0.02622
7	0.01295	0.01295	0.01295	0.01295	0.01295	0.01386	0.01386	0.01386	0.01386	0.01386
8	0.00659	0.00659	0.00659	0.00659	0.00659	0.00628	0.00628	0.00628	0.00628	0.00628
9	0.00373	0.00373	0.00373	0.00373	0.00373	0.00283	0.00283	0.00283	0.00283	0.00283
10	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Appendix A – Statement of Actuarial Methods and Assumptions

Plan Specific Actuarial Assumptions (continued)

State Miscellaneous Tier 2 (continued)

Termination with Vested Deferred Benefits

Rates vary by entry age and service. See sample rates in the table below.

Duration of Service	Entry Age									
	Male					Female				
	20	25	30	35	40	20	25	30	35	40
10	0.03062	0.03062	0.03062	0.03062	0.03062	0.03652	0.03652	0.03652	0.03652	0.03652
14	0.02199	0.02199	0.02199	0.02199	0.02199	0.02726	0.02726	0.02726	0.02726	0.02726
15	0.02025	0.02025	0.02025	0.02025	0.02025	0.02534	0.02534	0.02534	0.02534	0.02534
19	0.01454	0.01454	0.01454	0.01454	0.00000	0.01892	0.01892	0.01892	0.01892	0.00000
20	0.01339	0.01339	0.01339	0.01339	0.00000	0.01758	0.01758	0.01758	0.01758	0.00000
24	0.00961	0.00961	0.00961	0.00000	0.00000	0.01313	0.01313	0.01313	0.00000	0.00000
25	0.00798	0.00798	0.00798	0.00000	0.00000	0.01118	0.01118	0.01118	0.00000	0.00000
29	0.00479	0.00479	0.00000	0.00000	0.00000	0.00671	0.00671	0.00000	0.00000	0.00000
30	0.00399	0.00399	0.00000	0.00000	0.00000	0.00559	0.00559	0.00000	0.00000	0.00000

- After termination with vested benefits, a miscellaneous member is assumed to retire at age 59 and a safety member at age 54.

Pre-Retirement Mortality and Disability

Rates vary by age and gender are displayed in the table below.

Attained Age	Non-Industrial Death (Not Job-Related)		Non-Industrial Disability (Not Job-Related)	
	Male	Female	Male	Female
20	0.00039	0.00014	0.00019	0.00030
25	0.00033	0.00013	0.00019	0.00031
30	0.00044	0.00019	0.00019	0.00044
35	0.00058	0.00029	0.00036	0.00079
40	0.00075	0.00039	0.00103	0.00150
45	0.00093	0.00054	0.00204	0.00291
50	0.00134	0.00081	0.00274	0.00403
55	0.00198	0.00123	0.00238	0.00292
60	0.00287	0.00179	0.00200	0.00238

The pre-retirement mortality rates above are from the 2017 base table. The base rates are then projected generationally using 80% of the Society of Actuaries' Scale MP-2020.

Appendix A – Statement of Actuarial Methods and Assumptions

Plan Specific Actuarial Assumptions (continued)

State Industrial

Service Retirement - Classic Members

Rates vary by age and years of service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.001	0.009	0.013	0.016	0.023	0.022	0.024
52	0.004	0.013	0.016	0.018	0.024	0.023	0.025
54	0.009	0.025	0.032	0.037	0.049	0.047	0.051
56	0.001	0.028	0.063	0.142	0.157	0.181	0.201
58	0.107	0.038	0.048	0.116	0.133	0.156	0.174
60	0.015	0.065	0.084	0.187	0.196	0.216	0.240
62	0.034	0.190	0.212	0.374	0.321	0.332	0.361
65	0.297	0.261	0.205	0.214	0.243	0.243	0.243
70	0.227	0.227	0.227	0.227	0.227	0.227	0.227
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement - PEPRA Members

Rates vary by age and years of service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52	0.005	0.006	0.011	0.016	0.022	0.024	0.030
54	0.010	0.014	0.021	0.032	0.043	0.048	0.060
56	0.020	0.028	0.043	0.066	0.088	0.098	0.122
58	0.022	0.031	0.048	0.074	0.098	0.109	0.136
60	0.034	0.048	0.074	0.114	0.153	0.169	0.210
62	0.063	0.090	0.141	0.213	0.286	0.318	0.394
65	0.073	0.105	0.164	0.248	0.334	0.372	0.460
70	0.097	0.139	0.217	0.329	0.443	0.493	0.611
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Termination with Refund

Rates vary by years of service. See sample rates in the table below.

Duration of Service	Male/Female
0	0.07233
1	0.06425
2	0.05592
3	0.04706
4	0.03761
5	0.02799
6	0.01916
7	0.01208
8	0.00729
9	0.00467

Appendix A – Statement of Actuarial Methods and Assumptions

Plan Specific Actuarial Assumptions (continued)

State Industrial (continued)

Termination with Vested Deferred Benefits

Rates vary by entry age and years of service. See sample rates in the table below.

Duration of Service	Entry Age				
	20	25	30	35	40
5	0.02613	0.02613	0.02613	0.02613	0.02613
6	0.02490	0.02490	0.02490	0.02490	0.02490
7	0.02372	0.02372	0.02372	0.02372	0.02372
8	0.02260	0.02260	0.02260	0.02260	0.02260
9	0.02154	0.02154	0.02154	0.02154	0.02154
10	0.02052	0.02052	0.02052	0.02052	0.02052
14	0.01691	0.01691	0.01691	0.01691	0.00000
15	0.01612	0.01612	0.01612	0.01612	0.00000
19	0.01328	0.01328	0.01328	0.00000	0.00000
20	0.01266	0.01266	0.01266	0.00000	0.00000
24	0.01043	0.01043	0.00000	0.00000	0.00000
25	0.00734	0.00734	0.00000	0.00000	0.00000
29	0.00440	0.00000	0.00000	0.00000	0.00000
30	0.00367	0.00000	0.00000	0.00000	0.00000

- After termination with vested benefits, a miscellaneous member is assumed to retire at age 59 and a safety member at age 54.

Pre-Retirement Mortality and Disability

Rates vary by age and gender are displayed in the table below.

Attained Age	Non-Industrial Death		Non-Industrial Disability	Industrial Death		Industrial Disability
	Male	Female	Male and Female	Male	Female	Male and Female
20	0.00038	0.00014	0.00035	0.00004	0.00002	0.00006
25	0.00034	0.00018	0.00035	0.00004	0.00002	0.00006
30	0.00042	0.00025	0.00086	0.00005	0.00003	0.00006
35	0.00048	0.00034	0.00149	0.00005	0.00004	0.00012
40	0.00055	0.00042	0.00239	0.00006	0.00005	0.00012
45	0.00066	0.00053	0.00364	0.00007	0.00006	0.00018
50	0.00092	0.00073	0.00488	0.00010	0.00008	0.00018
55	0.00138	0.00106	0.00626	0.00015	0.00012	0.00023
60	0.00221	0.00151	0.00626	0.00025	0.00017	0.00023

The pre-retirement mortality rates above are from the 2017 base table. The base rates are then projected generationally using 80% of the Society of Actuaries' Scale MP-2020.

An industrial disability or death is job-related, while a non-industrial disability or death is not job-related.

Appendix A – Statement of Actuarial Methods and Assumptions

Plan Specific Actuarial Assumptions (continued)

State Safety

Service Retirement - Classic Members

Rates vary by age and years of service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.009	0.014	0.018	0.028	0.022	0.024	0.024
52	0.017	0.019	0.019	0.026	0.018	0.019	0.019
54	0.012	0.018	0.024	0.038	0.034	0.042	0.042
56	0.019	0.042	0.058	0.122	0.161	0.196	0.214
58	0.055	0.050	0.057	0.112	0.127	0.166	0.205
60	0.062	0.057	0.070	0.136	0.170	0.205	0.222
62	0.088	0.104	0.151	0.224	0.212	0.245	0.245
65	0.197	0.163	0.213	0.281	0.229	0.250	0.250
70	0.128	0.223	0.253	0.260	0.260	0.260	0.260
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement - PEPRA Members

Rates vary by age and years of service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.007	0.011	0.017	0.026	0.027	0.033	0.038
52	0.007	0.014	0.014	0.026	0.026	0.030	0.037
54	0.012	0.017	0.017	0.026	0.031	0.041	0.074
56	0.024	0.029	0.044	0.082	0.104	0.128	0.173
58	0.028	0.038	0.055	0.087	0.106	0.143	0.205
60	0.043	0.050	0.081	0.139	0.142	0.181	0.231
62	0.067	0.076	0.112	0.191	0.202	0.246	0.285
65	0.100	0.124	0.155	0.224	0.231	0.280	0.323
70	0.137	0.167	0.214	0.281	0.309	0.373	0.401
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Termination with Refund

Rates vary by service. See sample rates in the table below.

Duration of Service	Male	Female
0	0.11560	0.14291
1	0.08866	0.11349
2	0.06558	0.08653
3	0.04648	0.06306
4	0.03141	0.04376
5	0.02027	0.02889
6	0.01283	0.01841
7	0.00850	0.01185
8	0.00640	0.00832
9	0.00560	0.00674

Appendix A – Statement of Actuarial Methods and Assumptions

Plan Specific Actuarial Assumptions (continued)

State Safety (continued)

Termination with Vested Deferred Benefits

Rates vary by service. See sample rates in the table below.

Duration of Service	Male	Female
5	0.02284	0.03006
6	0.02148	0.02838
7	0.02020	0.02679
8	0.01900	0.02529
9	0.01787	0.02387
10	0.01681	0.02254
15	0.01236	0.01690
20	0.00910	0.01267
25	0.00669	0.00950
30	0.00492	0.00712
35	0.00000	0.00000

- After termination with vested benefits, a miscellaneous member is assumed to retire at age 59 and a safety member at age 54.

Pre-Retirement Mortality and Disability

Rates vary by age. See sample rates in the table below.

Attained Age	Non-Industrial Death		Non-Industrial Disability	Industrial Death		Industrial Disability
	Male	Female	Male and Female	Male	Female	Male and Female
20	0.00038	0.00014	0.00036	0.00004	0.00002	0.00000
25	0.00034	0.00018	0.00054	0.00004	0.00002	0.00018
30	0.00042	0.00025	0.00063	0.00005	0.00003	0.00121
35	0.00048	0.00034	0.00072	0.00005	0.00004	0.00207
40	0.00055	0.00042	0.00072	0.00006	0.00005	0.00296
45	0.00066	0.00053	0.00108	0.00007	0.00006	0.00420
50	0.00092	0.00073	0.00201	0.00010	0.00008	0.00578
55	0.00138	0.00106	0.00240	0.00015	0.00012	0.00774
60	0.00221	0.00151	0.00320	0.00025	0.00017	0.00963

The pre-retirement mortality rates above are from the 2017 base table. The base rates are then projected generationally using 80% of the Society of Actuaries' Scale MP-2020.

An industrial disability or death is job-related, while a non-industrial disability or death is not job-related.

Appendix A – Statement of Actuarial Methods and Assumptions

Plan Specific Actuarial Assumptions (continued)

State Peace Officers and Firefighters

Service Retirement - Classic Members

Rates vary by age and years of service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.089	0.029	0.048	0.149	0.290	0.386	0.386
52	0.010	0.023	0.040	0.100	0.174	0.225	0.225
54	0.149	0.026	0.043	0.111	0.214	0.228	0.246
56	0.026	0.034	0.059	0.148	0.217	0.282	0.316
58	0.031	0.041	0.068	0.172	0.233	0.255	0.257
60	0.061	0.075	0.111	0.207	0.319	0.311	0.325
62	0.080	0.113	0.171	0.262	0.337	0.330	0.359
65	0.235	0.181	0.217	0.293	0.347	0.321	0.341
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement - PEPRA Members – 2.5% @ 57

Rates vary by age and years of service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.008	0.021	0.031	0.076	0.157	0.314	0.327
52	0.008	0.018	0.029	0.067	0.102	0.179	0.180
54	0.016	0.032	0.040	0.089	0.122	0.219	0.230
56	0.025	0.035	0.046	0.108	0.170	0.268	0.276
58	0.018	0.059	0.063	0.142	0.202	0.319	0.319
60	0.033	0.063	0.089	0.170	0.262	0.342	0.349
62	0.067	0.104	0.130	0.221	0.324	0.415	0.440
65	0.065	0.081	0.127	0.231	0.342	0.427	0.453
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement - PEPRA Members – 2.7% @ 57

Rates vary by age and years of service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.008	0.021	0.031	0.076	0.157	0.314	0.327
52	0.009	0.020	0.031	0.072	0.109	0.191	0.193
54	0.017	0.034	0.042	0.094	0.130	0.234	0.245
56	0.026	0.037	0.048	0.115	0.181	0.285	0.293
58	0.020	0.065	0.070	0.158	0.224	0.354	0.354
60	0.035	0.066	0.094	0.179	0.276	0.360	0.367
62	0.067	0.104	0.130	0.221	0.324	0.415	0.440
65	0.065	0.081	0.127	0.231	0.342	0.427	0.453
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Appendix A – Statement of Actuarial Methods and Assumptions

Plan Specific Actuarial Assumptions (continued)

State Peace Officers and Firefighters (continued)

Termination with Refund

Rates vary by years of service. See sample rates in the table below.

Duration of Service	Male	Female
0	0.10139	0.10328
1	0.07185	0.07858
2	0.05263	0.06047
3	0.03958	0.04693
4	0.02961	0.03624
5	0.02133	0.02732
6	0.01459	0.01978
7	0.00963	0.01366
8	0.00642	0.00904
9	0.00462	0.00589

Termination with Vested Deferred Benefits

Rates vary by years of service. See sample rates in the table below.

Duration of Service	Male	Female
5	0.01109	0.02295
6	0.01065	0.02129
7	0.01022	0.01976
8	0.00979	0.01833
9	0.00937	0.01700
10	0.00895	0.01577
15	0.00699	0.01084
20	0.00522	0.00745
25	0.00362	0.00512
30	0.00221	0.00352
35	0.00000	0.00000

- After termination with vested benefits, a miscellaneous member is assumed to retire at age 59 and a safety member at age 54.

Pre-Retirement Mortality and Disability

Rates vary by age. See sample rates in the table below.

Attained Age	Non-Industrial Death		Non-Industrial Disability	Industrial Death		Industrial Disability
	Male	Female	Male and Female	Male	Female	Male and Female
20	0.00038	0.00014	0.00030	0.00004	0.00002	0.00039
25	0.00034	0.00018	0.00030	0.00004	0.00002	0.00087
30	0.00042	0.00025	0.00030	0.00005	0.00003	0.00167
35	0.00048	0.00034	0.00030	0.00005	0.00004	0.00289
40	0.00055	0.00042	0.00040	0.00006	0.00005	0.00464
45	0.00066	0.00053	0.00060	0.00007	0.00006	0.00706
50	0.00092	0.00073	0.00098	0.00010	0.00008	0.01027
55	0.00138	0.00106	0.00143	0.00015	0.00012	0.01442
60	0.00221	0.00151	0.00188	0.00025	0.00017	0.01966

The pre-retirement mortality rates above are from the 2017 base table. The base rates are then projected generationally using 80% of the Society of Actuaries' Scale MP-2020.

An industrial disability or death is job-related, while a non-industrial disability or death is not job-related.

Appendix A – Statement of Actuarial Methods and Assumptions

Plan Specific Actuarial Assumptions (continued)

California Highway Patrol

Service Retirement - Classic Members

Rates vary by age and years of service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.043	0.043	0.046	0.087	0.211	0.374	0.423
52	0.030	0.030	0.032	0.061	0.148	0.263	0.297
54	0.032	0.032	0.034	0.064	0.155	0.275	0.311
56	0.091	0.091	0.091	0.135	0.221	0.308	0.351
58	0.095	0.095	0.095	0.140	0.230	0.320	0.365
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement - PEPRA Members

Rates vary by age and years of service. See sample rates in the table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.027	0.027	0.027	0.034	0.075	0.293	0.317
52	0.020	0.020	0.020	0.020	0.070	0.236	0.287
54	0.030	0.030	0.030	0.030	0.099	0.247	0.323
56	0.043	0.043	0.043	0.071	0.118	0.298	0.323
58	0.044	0.044	0.044	0.044	0.154	0.304	0.315
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Termination with Refund

Rates vary by service. See sample rates in the table below.

Duration of Service	Male	Female
0	0.03310	0.08000
1	0.02324	0.02208
2	0.01553	0.01475
3	0.00975	0.00927
4	0.00567	0.00538
5	0.00301	0.00286
6	0.00241	0.00229
7	0.00181	0.00172
8	0.00120	0.00114
9	0.00060	0.00057

Termination with Vested Deferred Benefits

Duration of Service	Male	Female
5	0.00875	0.01750
6	0.00811	0.01622
7	0.00751	0.01503
8	0.00696	0.01392
9	0.00645	0.01290
10	0.00598	0.01195
15	0.00408	0.00816
20	0.00279	0.00557
25	0.00190	0.00380
30	0.00000	0.00000

Rates vary by service. See sample rates in the table below.

- After termination with vested benefits, a miscellaneous member is assumed to retire at age 59 and a safety member at age 54.

Appendix A – Statement of Actuarial Methods and Assumptions

Plan Specific Actuarial Assumptions (continued)

California Highway Patrol (continued)

Pre-Retirement Mortality and Disability

Rates vary by age. See sample rates in the table below.

Attained Age	Non-Industrial Death		Non-Industrial Disability	Industrial Death		Industrial Disability
	Male	Female	Male and Female	Male	Female	Male and Female
20	0.00038	0.00014	0.00008	0.00004	0.00002	0.00016
25	0.00034	0.00018	0.00008	0.00004	0.00002	0.00035
30	0.00042	0.00025	0.00008	0.00005	0.00003	0.00068
35	0.00048	0.00034	0.00008	0.00005	0.00004	0.00122
40	0.00055	0.00042	0.00008	0.00006	0.00005	0.00202
45	0.00066	0.00053	0.00017	0.00007	0.00006	0.00316
50	0.00092	0.00073	0.00017	0.00010	0.00008	0.01214
55	0.00138	0.00106	0.00017	0.00015	0.00012	0.05407
60	0.00221	0.00151	0.00017	0.00025	0.00017	0.20431

The pre-retirement mortality rates above are from the 2017 base table. The base rates are then projected generationally using 80% of the Society of Actuaries' Scale MP-2020.

An industrial disability or death is job-related, while a non-industrial disability or death is not job-related.

Appendix B – Principal Plan Provisions

State Miscellaneous Tier 1

The following is a summary of the major plan provisions for the most representative group used in calculating the liabilities of this plan. Many of the statements in this summary are general in nature and intended to provide a summary of the complex Public Employees' Retirement Law. The law itself governs in all situations.

Service Retirement

Eligibility

Classic members become eligible for Service Retirement upon attainment of age 50 with at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). PEPRA members become eligible for Service Retirement upon attainment of age 52 with at least five years of service.

Benefit

The Service Retirement benefit calculated for service earned by this group of employees is a monthly allowance equal to the product of the *benefit factor*, *years of service*, and *final compensation*, where

- The *benefit factor* for this group of employees comes from the **2% at 55** benefit factor table. New Classic members hired on or after January 15, 2011, are subject to the **2% at 60** benefit factor table. New PEPRA members hired on or after January 1, 2013, are subject to the **2% at 62** benefit factor table. The factor depends on the member's age at retirement. Listed below are the factors for retirement at whole year ages:

Retirement Age	2% @ 55 Factor	2% @ 60 Factor	2% @ 62 Factor
50	1.100%	1.092%	N/A
51	1.280%	1.156%	N/A
52	1.460%	1.224%	1.000%
53	1.640%	1.296%	1.100%
54	1.820%	1.376%	1.200%
55	2.000%	1.460%	1.300%
56	2.064%	1.552%	1.400%
57	2.126%	1.650%	1.500%
58	2.188%	1.758%	1.600%
59	2.250%	1.874%	1.700%
60	2.314%	2.000%	1.800%
61	2.376%	2.134%	1.900%
62	2.438%	2.272%	2.000%
63	2.500%	2.418%	2.100%
64	2.500%	2.418%	2.200%
65	2.500%	2.418%	2.300%
66	2.500%	2.418%	2.400%
67 & Up	2.500%	2.418%	2.500%

- The *years of service* is the amount credited by CalPERS to a member while he or she is employed in this group (or for other periods that are recognized under the employer's contract with CalPERS). For a member who has earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, then added together for the total allowance. Any unused sick leave accumulated at the time of retirement will be converted to credited service at the rate of 0.004 years of service for each day of sick leave.

State Miscellaneous Tier 1 (continued)

- The *final compensation* is the monthly average of the member's highest 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). For some new members hired after July 1, 2006, and for all new members hired on or after January 15, 2011, final compensation is based on the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. PEPPRA members have a cap on the annual salary used to calculate final compensation based on the Social Security Contribution and Benefit Base. For employees who participate in Social Security this cap is \$151,446 for 2024 and for those employees who do not participate in Social Security the cap for 2024 is \$181,734. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers.
- Employees may or may not be covered by Social Security. For employees covered by Social Security, the final compensation is offset by \$133.33 (or by one third if the final compensation is less than \$400). For some PEPPRA members, the final compensation is not offset.
- The Service Retirement benefit is not capped.

Vested Deferred Retirement

Eligibility for Deferred Status

A CalPERS member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, **and** has earned at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Eligibility to Start Receiving Benefits

Classic members become eligible to receive a deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50. PEPPRA members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 52.

Benefit

The vested deferred retirement benefit is the same as the Service Retirement benefit, where the benefit factor is based on the member's age at allowance commencement. For members who have earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, then added together for the total allowance.

Non-Industrial (Non-Job Related) Disability Retirement

Eligibility

A CalPERS member is eligible for Non-Industrial Disability Retirement if he or she becomes disabled and has at least five years of credited service (total service across all PERS employers, and with certain other Retirement Systems with which PERS has reciprocity agreements). There is no special age requirement. Disabled means the member is unable to perform his or her job because of an illness or injury which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job related. A CalPERS member must be actively working with any CalPERS employer at the time of disability in order to be eligible for this benefit.

Benefit

The Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.8% of final compensation, multiplied by *service*, which is determined as follows:

- *Service* is CalPERS credited service, for members with less than 10 years of service or greater than 18.518 years of service; or
- *Service* is CalPERS credited service plus the additional number of years that the member would have worked until age 60, for members with at least 10 years but not more than 18.518 years of service. The maximum benefit in this case is 33-1/3% of Final Compensation.

Appendix B – Principal Plan Provisions

State Miscellaneous Tier 1 (continued)

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members eligible to retire, and who have attained the normal retirement age determined by their service retirement benefit formula, will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

Post-Retirement Death Benefit

Lump Sum Payment

Upon the death of a retiree, a one-time lump sum payment of \$2,000 will be made to the retiree's designated survivor(s) or the retiree's estate.

Form of Payment for Retirement Allowance

Generally, the retirement allowance is paid to the retiree in the form of an annuity for as long as he or she is alive. The retiree may choose to provide for a portion of his or her allowance to be paid to any designated beneficiary after the retiree's death. CalPERS provides for a variety of such benefit options, which the retiree pays for by taking a reduction in his or her retirement allowance. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

For retirement allowances with respect to service earned by employment in this group, 25% (50% for those without social security) of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, *without* a reduction in the retiree's allowance. This additional benefit is often referred to as *post retirement survivor allowance* (PRSA) or simply as *survivor continuance*.

In other words, 25% (50% for those without social security) of the allowance, the *continuance portion*, is paid to the retiree for as long as he or she is alive, and that same amount is continued to the retiree's spouse (or if no eligible spouse, to unmarried children until they attain age 18; unless they are disabled, or, if no eligible children, to a qualifying dependent parent) for the rest of his or her lifetime.

The remaining 75% (50% for those without social security) of the retirement allowance, which may be referred to as the *option portion* of the benefit, is paid to the retiree as an annuity for as long as he or she is alive. The retiree may choose to provide for some of this *option portion* to be paid to any designated beneficiary after the retiree's death. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*. If there is no eligible survivor, then the option portion is 100% of the retirement allowance.

Pre-Retirement Death Benefits

Group Term Life Insurance

Eligibility

An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any state employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit

The benefit is a lump sum payment of \$5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount will not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

Appendix B – Principal Plan Provisions

State Miscellaneous Tier 1 (continued)

For members with less than 20 years of service credit and not age-eligible to retire:

Basic Death Benefit

Eligibility

An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. A member's survivor who is eligible for any other pre-retirement death benefit described below may choose to receive that death benefit instead of this Basic Death benefit.

Benefit

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is credited at the greater of 6% or the prevailing discount rate. In addition, a lump sum in the amount of six months' salary shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

Eligibility

This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

Benefit

The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

1957 Survivor Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the 1957 Survivor benefit if the member dies while actively employed, has attained at least age 50 for Classic and Safety PEPRA members and age 52 for Miscellaneous PEPRA members, and has at least five years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death or, if there is no eligible spouse, to the member's unmarried children under age 18. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the Optional Settlement 2W Death benefit.

Appendix B – Principal Plan Provisions

State Miscellaneous Tier 1 (continued)

Benefit

The 1957 Survivor benefit is a monthly allowance equal to one-half of the unmodified Service Retirement benefit that the member would have been entitled to receive if the member had retired on the date of his or her death. If the benefit is payable to the spouse, the benefit is discontinued upon the death of the spouse. If the benefit is payable to a dependent child, the benefit will be discontinued upon death or attainment of age 18. There is a guarantee that the total amount paid will at least equal the Basic Death benefit.

Optional Settlement 2W Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50 for Classic and Safety PEPRAs and age 52 for Miscellaneous PEPRAs, and has at least five years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the 1957 Survivor benefit.

Benefit

The Optional Settlement 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

Retirement and survivor allowances are adjusted each year in May for cost of living, beginning the second calendar year after the year of retirement. The standard cost-of-living adjustment (COLA) is 2%. Annual adjustments are calculated by first determining the lesser of 1) 2% compounded from the end of the year of retirement or 2) actual rate of inflation. The resulting increase is divided by the total increase provided in prior years. For any particular year, the COLA adjustment may be less than 2% (when the rate of inflation is low), may be greater than the rate of inflation (when the rate of inflation is low after several years of high inflation) or may even be greater than 2% (when inflation is high after several years of low inflation).

Purchasing Power Protection Allowance (PPPA)

Retirement and survivor allowances are protected against inflation by PPPA. PPPA benefits are cost-of-living adjustments that are intended to maintain an individual's allowance at 75% of the initial allowance at retirement adjusted for inflation since retirement. The PPPA benefit will be coordinated with other cost-of-living adjustments provided under the plan. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Appendix B – Principal Plan Provisions

State Miscellaneous Tier 1 (continued)

Employee Contributions

Each employee contributes toward his or her retirement based upon one of the following schedules. The employer may choose to “pick up” these contributions for the employees. For employees covered by Social Security, the monthly compensation breakpoint is \$513, and the contribution schedule is as follows:

- The percent contributed below the monthly compensation breakpoint is 0%.
- The percent contributed above the monthly compensation breakpoint ranges from 5% to 10%.

There are a small number of employees not covered by Social Security in this plan. For those employees, the monthly compensation breakpoint is \$317, and contributions are as follows:

- The percent contributed below the monthly compensation breakpoint is 0%.
- The percent contributed above the monthly compensation breakpoint is 1% greater than the contribution paid by those covered by Social Security.

For some new PEPRA members, the monthly compensation breakpoint is \$0, and contributions are as follows:

- The percent contributed below the monthly compensation breakpoint is 0%.
- The percent contributed above the monthly compensation breakpoint is half of the total normal cost. See the “PEPRA Member Contribution Rates” section of this report for more information.

Refund of Employee Contributions

If the member’s service with the employer ends and the member does not satisfy the eligibility conditions for any of the retirement benefits above, the member may elect to receive a refund of his or her employee contributions, which are credited annually with 6% interest.

1959 Survivor Benefits Program

For these benefits, please refer to the 1959 Survivor Benefit Program Actuarial Valuation Report available on our website. This benefit is only available to members who are not covered by Social Security.

State Miscellaneous Tier 2

The following is a summary of the major plan provisions applicable to State Miscellaneous Tier 2 members. Many of the statements in this summary are general in nature and intended to provide an easily understood summary of the complex Public Employees’ Retirement Law. The law itself governs in all situations.

Tier 2 Members electing Tier 1 benefits

In general, State Miscellaneous Tier 2 members have the right to convert their Tier 2 service to Tier 1 service provided they make up the shortfall in their accumulated contributions with interest. In this valuation, we have assumed that all State Miscellaneous Tier 2 members eligible to convert their Tier 2 service to Tier 1 service will elect to do so.

Service Retirement

Eligibility

A member becomes eligible for Service Retirement upon attainment of age 55 with at least 10 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Appendix B – Principal Plan Provisions

State Miscellaneous Tier 2 (continued)

Benefit

The Service Retirement benefit calculated for service earned by this group of employees is a monthly allowance equal to the product of the *benefit factor*, *years of service*, and *final compensation*, where

- The *benefit factor* for Classic employees comes from the **1.25% at 65** Tier 2 benefit factor table. New PEPRA members hired on or after January 1, 2013, are subject to the **1.25% at 67** benefit factor table. The factor depends on the member's age at retirement. Listed below are the factors for retirement at whole year ages:

Retirement Age	1.25% @ 65 Tier 2 Factor	1.25% @ 67 Tier 2 Factor
50	0.500%	N/A
51	0.550%	N/A
52	0.600%	N/A
53	0.650%	N/A
54	0.700%	N/A
55	0.750%	0.770%
56	0.800%	0.810%
57	0.850%	0.850%
58	0.900%	0.890%
59	0.950%	0.930%
60	1.000%	0.970%
61	1.050%	1.010%
62	1.100%	1.050%
63	1.150%	1.090%
64	1.200%	1.130%
65	1.250%	1.170%
66	1.250%	1.210%
67 & Up	1.250%	1.250%

- The *years of service* is the amount credited by CalPERS to a member while he or she is employed in this group (or for other periods that are recognized under the employer's contract with CalPERS). For a member who has earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance. Any unused sick leave accumulated at the time of retirement will be converted to credited service at the rate of 0.004 years of service for each day of sick leave.
- The *final compensation* is the monthly average of the member's highest 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). For some new members hired after July 1, 2006, and for all new members hired on or after January 15, 2011, final compensation is based on the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. PEPRA members have a cap on the annual salary used to calculate final compensation based on the Social Security Contribution and Benefit Base. For employees who participate in Social Security this cap is \$151,446 for 2024 and for those employees who do not participate in Social Security the cap for 2024 is \$181,734. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers
- Employees may or may not be covered by Social Security. The final compensation is not offset by a dollar amount.
- The Service Retirement benefit is not capped.

Vested Deferred Retirement

Eligibility for Deferred Status

A member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, and has earned at least 10 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Appendix B – Principal Plan Provisions

State Miscellaneous Tier 2 (continued)

Eligibility to Start Receiving Benefits

The member becomes eligible to receive a deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 55.

Benefit

The vested deferred retirement benefit is the same as the Service Retirement benefit, where the benefit factor is based on the member's age at allowance commencement. For members who have earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, then added together for the total allowance.

Non-Industrial (Non-Job Related) Disability Retirement

Eligibility

A CalPERS member is eligible for Non-Industrial Disability Retirement if he or she becomes disabled and has at least 10 years of credited service (total service across all PERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). There is no special age requirement. Disabled means the member is unable to perform his or her job because of an illness or injury which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job related. A CalPERS member must be actively working with any CalPERS employer at the time of disability in order to be eligible for this benefit.

Benefit

The Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.125% of final compensation, multiplied by service, which is determined as follows:

- Service is CalPERS credited service, for members with greater than 29.628 years of service; or
- Service is CalPERS credited service plus the additional number of years that the member would have worked until age 65, for members with less than 29.628 years of service. The maximum benefit in this case is 33-1/3% of Final Compensation.

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members who are eligible to retire and have attained the normal retirement age determined by their service retirement benefit formula will receive the same dollar amount for disability retirement that is payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

Post-Retirement Death Benefit

Lump Sum Payment

Upon the death of a retiree, a one-time lump sum payment of \$2,000 will be made to the retiree's designated survivor(s) or the retiree's estate.

Form of Payment for Retirement Allowance

Generally, the retirement allowance is paid to the retiree in the form of an annuity for as long as he or she is alive. The retiree may choose to provide for a portion of his or her allowance to be paid to any designated beneficiary after the retiree's death. CalPERS provides for a variety of such benefit options, which the retiree pays for by taking a reduction in his or her retirement allowance. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

Appendix B – Principal Plan Provisions

State Miscellaneous Tier 2 (continued)

For retirement allowances with respect to service earned by employment in this group, 25% (50% for those without social security) of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, *without* a reduction in the retiree's allowance. This additional benefit is often referred to as post-retirement survivor allowance (PRSA) or simply as *survivor continuance*.

In other words, 25% (50% for those without social security) of the allowance, the *continuance portion*, is paid to the retiree for as long as he or she is alive, and that same amount is continued to the retiree's spouse (or if no eligible spouse, to unmarried children until they attain age 18; unless they are disabled, or, if no eligible children, to a qualifying dependent parent) for the rest of his or her lifetime.

The remaining 75% (50% for those without social security) of the retirement allowance, which may be referred to as the *option portion* of the benefit, is paid to the retiree as an annuity for as long as he or she is alive. The retiree may choose to provide for some of this *option portion* to be paid to any designated beneficiary after the retiree's death. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*. If there is no eligible survivor, then the option portion is 100% of the retirement allowance.

Pre-Retirement Death Benefits

Group Term Life Insurance

Eligibility

An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any state employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit

The benefit is a lump sum payment of \$5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount will not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

Basic Death Benefit

Eligibility

An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. A member's survivor who is eligible for any other pre-retirement death benefit described below may choose to receive that death benefit instead of this Basic Death benefit.

Benefit

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is the greater of 6% or the prevailing discount rate. In addition, a lump sum in the amount of six months' salary shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.

State Miscellaneous Tier 2 (continued)

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

Eligibility

This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

Benefit

The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

1957 Survivor Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the 1957 Survivor benefit if the member dies while actively employed and has attained retirement eligibility. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death or, if there is no eligible spouse, to the member's unmarried children under age 18. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the Optional Settlement 2W Death benefit.

Benefit

The 1957 Survivor benefit is a monthly allowance equal to one-half of the unmodified Service Retirement benefit that the member would have been entitled to receive if the member had retired on the date of his or her death. If the benefit is payable to the spouse, the benefit is discontinued upon the death of the spouse. If the benefit is payable to a dependent child, the benefit will be discontinued upon death or attainment of age 18. There is a guarantee that the total amount paid will at least equal the Basic Death benefit.

Optional Settlement 2W Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed and has attained retirement eligibility. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the 1957 Survivor benefit.

Benefit

The Optional Settlement 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Appendix B – Principal Plan Provisions

State Miscellaneous Tier 2 (continued)

Cost-of-Living Adjustments

Retirement and survivor allowances are adjusted each year in May for cost of living, beginning the second calendar year after the year of retirement. Retirement and survivor allowances will be annually adjusted on a compound basis by 3%.

Purchasing Power Protection Allowance (PPPA)

Retirement and survivor allowances are protected against inflation by PPPA. PPPA benefits are cost-of-living adjustments that are intended to maintain an individual's allowance at 75% of the initial allowance at retirement adjusted for inflation since retirement. The PPPA benefit will be coordinated with other cost-of-living adjustments provided under the plan. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Employee Contributions

Each employee contributes toward his or her retirement based upon one of the following schedules. The employer may choose to “pick-up” these contributions for the employees.

- The percent contributed above the monthly compensation breakpoint is 3.75%.
- The monthly compensation breakpoint is \$0.
- The percent contributed below the monthly compensation breakpoint is 0%.

Refund of Employee Contributions

If the member's service with the employer ends, and if the member does not satisfy the eligibility conditions for any of the retirement benefits above, the member may elect to receive a refund of his or her employee contributions, which are credited annually with 6% interest.

1959 Survivor Benefits Program

For these benefits, please refer to the 1959 Survivor Benefit Program Actuarial Valuation Report available on our website. This benefit is only available to members who are not covered by Social Security.

State Industrial Tier 1

The following is a summary of the major plan provisions for the most representative group used in calculating the liabilities of the plan. Many of the statements in this summary are general in nature and intended to provide an easily understood summary of the complex Public Employees' Retirement Law. The law itself governs in all situations.

Service Retirement

Eligibility

Classic members become eligible for Service Retirement upon attainment of age 50 with at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). PEPRA members become eligible for Service Retirement upon attainment of age 52 with at least five years of service.

Appendix B – Principal Plan Provisions

State Industrial Tier 1 (continued)

Benefit

The Service Retirement benefit calculated for service earned by this group of employees is a monthly allowance equal to the product of the *benefit factor*, *years of service*, and *final compensation*, where

- The *benefit factor* for this group of employees comes from the **2% at 55** benefit factor table. New Classic members hired on or after January 15, 2011, are subject to the **2% at 60** benefit factor table. New PEPRA members hired on or after January 1, 2013, are subject to the **2% at 62** benefit factor table. The factor depends on the member's age at retirement. Listed below are the factors for retirement at whole year ages:

Retirement Age	2% @ 55 Factor	2% @ 60 Factor	2% @ 62 Factor
50	1.100%	1.092%	N/A
51	1.280%	1.156%	N/A
52	1.460%	1.224%	1.000%
53	1.640%	1.296%	1.100%
54	1.820%	1.376%	1.200%
55	2.000%	1.460%	1.300%
56	2.064%	1.552%	1.400%
57	2.126%	1.650%	1.500%
58	2.188%	1.758%	1.600%
59	2.250%	1.874%	1.700%
60	2.314%	2.000%	1.800%
61	2.376%	2.134%	1.900%
62	2.438%	2.272%	2.000%
63	2.500%	2.418%	2.100%
64	2.500%	2.418%	2.200%
65	2.500%	2.418%	2.300%
66	2.500%	2.418%	2.400%
67 & Up	2.500%	2.418%	2.500%

- The *years of service* is the amount credited by CalPERS to a member while he or she is employed in this group (or for other periods that are recognized under the employer's contract with CalPERS). For a member who has earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance. Any unused sick leave accumulated at the time of retirement will be converted to credited service at the rate of 0.004 years of service for each day of sick leave.
- The *final compensation* is the monthly average of the member's highest 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). For some new members hired after July 1, 2006, and for all new members hired on or after January 15, 2011, final compensation is based on the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. PEPRA members have a cap on the annual salary used to calculate final compensation based on the Social Security Contribution and Benefit Base. For employees who participate in Social Security this cap is \$151,446 for 2024 and for those employees who do not participate in Social Security the cap for 2024 is \$181,734. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers.
- Employees may or may not be covered by Social Security. For employees covered by Social Security, the final compensation is offset by \$133.33 (or by one third if the final compensation is less than \$400). For some PEPRA members, the final compensation is not offset.
- The Service Retirement benefit is not capped.

Appendix B – Principal Plan Provisions

State Industrial Tier 1 (continued)

Vested Deferred Retirement

Eligibility for Deferred Status

A CalPERS member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, and has earned at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Eligibility to Start Receiving Benefits

Classic members become eligible to receive the deferred benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50. PEPRA Miscellaneous members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 52.

Benefit

The vested deferred retirement benefit is the same as the Service Retirement benefit, where the benefit factor is based on the member's age at allowance commencement. For members who have earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, then added together for the total allowance.

Non-Industrial (Non-Job Related) Disability Retirement

Eligibility

A CalPERS member is eligible for Non-Industrial Disability Retirement if he or she becomes disabled and has at least five years of credited service (total service across all PERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). There is no special age requirement. Disabled means the member is unable to perform his or her job because of an illness or injury which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job-related. A CalPERS member must be actively working with any CalPERS employer at the time of disability in order to be eligible for this benefit.

Benefit

The Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.8% of final compensation, multiplied by *service*, which is determined as follows:

- *Service* is CalPERS credited service, for members with less than 10 years of service or greater than 18.518 years of service; or
- *Service* is CalPERS credited service plus the additional number of years that the member would have worked until age 60, for members with at least 10 years but not more than 18.518 years of service. The maximum benefit in this case is 33-1/3% of Final Compensation.

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members eligible to retire, and who have attained the normal retirement age determined by their service retirement benefit formula, will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

Appendix B – Principal Plan Provisions

State Industrial Tier 1 (continued)

Industrial (Job-Related) Disability Retirement

Eligibility

An employee is eligible for Industrial Disability Retirement if he or she becomes disabled while working, where disabled means the member is unable to perform the duties of the job because of a work-related illness or injury which is expected to be permanent or to last indefinitely. A CalPERS member who has left active employment within this group is not eligible for this benefit except to the extent described in the next paragraph.

Benefit

The Industrial Disability Retirement benefit is a monthly allowance equal to 50% of final compensation, plus an annuity purchased with the accumulated additional contributions, if any. However, if a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit, plus an annuity purchased with the accumulated additional contributions, if any. For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return or annuitization of the accumulated member contributions with respect to employment in this group.

Post-Retirement Death Benefit

Lump Sum Payment

Upon the death of a retiree, a one-time lump sum payment of \$2,000 will be made to the retiree's designated survivor(s) or the retiree's estate.

Form of Payment for Retirement Allowance

Generally, the retirement allowance is paid to the retiree in the form of an annuity for as long as he or she is alive. The retiree may choose to provide for a portion of his or her allowance to be paid to any designated beneficiary after the retiree's death. CalPERS provides for a variety of such benefit options, which the retiree pays for by taking a reduction in his or her retirement allowance. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

For retirement allowances with respect to service earned by employment in this group, 25% (50% for those without social security) of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree *without* a reduction in the retiree's allowance. This additional benefit is often referred to as post-retirement survivor allowance (PRSA) or simply as *survivor continuance*.

In other words, 25% (50% for those without social security) of the allowance, the *continuance portion*, is paid to the retiree for as long as he or she is alive, and that same amount is continued to the retiree's spouse (or if no eligible spouse, to unmarried children until they attain age 18; unless they are disabled or, if no eligible children, to a qualifying dependent parent) for the rest of his or her lifetime.

The remaining 75% (50% for those without social security) of the retirement allowance, which may be referred to as the *option portion* of the benefit, is paid to the retiree as an annuity for as long as he or she is alive. Or, the retiree may choose to provide for some of this *option portion* to be paid to any designated beneficiary after the retiree's death. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*. If there is no eligible survivor, then the option portion is 100% of the retirement allowance.

Appendix B – Principal Plan Provisions

State Industrial Tier 1 (continued)

Pre-Retirement Death Benefits

Group Term Life Insurance

Eligibility

An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any state employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit

The benefit is a lump sum payment of \$5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount will not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

Basic Death Benefit

Eligibility

An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. A member's survivor who is eligible for any other pre-retirement death benefit described below may choose to receive that death benefit instead of this Basic Death benefit.

Benefit

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is the greater of 6% or the prevailing discount rate. In addition, a lump sum in the amount of six months' salary shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.

Special Death Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the Special Death benefit if the member dies while actively employed and the death is job-related. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 22. An eligible survivor who chooses to receive this benefit will not receive any other death benefit.

Benefit

The Special Death benefit is a monthly allowance equal to 50% of final compensation. The allowance will be increased whenever the compensation paid to active employees is increased but ceases to increase when the member would have attained age 50. The allowance is payable to the surviving spouse until death, at which time the allowance is continued to any unmarried children under age 22. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Appendix B – Principal Plan Provisions

State Industrial Tier 1 (continued)

If the member's death is the result of an accident or injury caused by external violence or physical force incurred in the performance of the member's duty, and there are *eligible* surviving children (*eligible* means unmarried children under age 22) in addition to an eligible spouse, then an additional monthly allowance is paid equal to the following:

- If 1 eligible child: 12.5% of final compensation
- If 2 eligible children: 20.0% of final compensation
- If 3 or more eligible children: 25.0% of final compensation

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

Eligibility

This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

Benefit

The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

1957 Survivor Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the 1957 Survivor benefit if the member dies while actively employed, has attained at least age 50 for Classic members and age 52 for PEPRAs members, and has at least five years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death or, if there is no eligible spouse, to the member's unmarried children under age 18. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the Special Death benefit.

Benefit

The 1957 Survivor benefit is a monthly allowance equal to one-half of the unmodified Service Retirement benefit that the member would have been entitled to receive if the member had retired on the date of his or her death. If the benefit is payable to the spouse, the benefit is discontinued upon the death of the spouse. If the benefit is payable to a dependent child, the benefit will be discontinued upon death or attainment of age 18. There is a guarantee that the total amount paid will at least equal the Basic Death benefit.

Appendix B – Principal Plan Provisions

State Industrial Tier 1 (continued)

Optional Settlement 2W Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50 for Classic and Safety PEPRAs members and age 52 for Miscellaneous PEPRAs members, and has at least five years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the 1957 Survivor benefit.

Benefit

The Optional Settlement 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

Retirement and survivor allowances are adjusted each year in May for cost of living, beginning the second calendar year after the year of retirement. The standard cost-of-living adjustment (COLA) is 2%. Annual adjustments are calculated by first determining the lesser of 1) 2% compounded from the end of the year of retirement or 2) actual rate of inflation. The resulting increase is divided by the total increase provided in prior years. For any particular year, the COLA adjustment may be less than 2% (when the rate of inflation is low), may be greater than the rate of inflation (when the rate of inflation is low after several years of high inflation) or may even be greater than 2% (when inflation is high after several years of low inflation).

Purchasing Power Protection Allowance (PPPA)

Retirement and survivor allowances are protected against inflation by PPPA. PPPA benefits are cost-of-living adjustments that are intended to maintain an individual's allowance at 75% of the initial allowance at retirement adjusted for inflation since retirement. The PPPA benefit will be coordinated with other cost-of-living adjustments provided under the plan. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Employee Contributions

Each employee contributes toward his or her retirement based upon one of the following schedules. The employer may choose to "pick-up" these contributions for the employees. For employees covered by Social Security, the monthly compensation breakpoint is \$513, and the contribution schedule is as follows:

- The percent contributed below the monthly compensation breakpoint is 0%.
- The percent contributed above the monthly compensation breakpoint ranges from 5% to 10%.

There are a small number of employees not covered by Social Security in this plan. For those employees, the monthly compensation breakpoint is \$317, and contributions are as follows:

- The percent contributed below the monthly compensation breakpoint is 0%.
- The percent contributed above the monthly compensation breakpoint is 1% greater than those covered by Social Security.

Appendix B – Principal Plan Provisions

State Industrial Tier 1 (continued)

Refund of Employee Contributions

If the member's service with the employer ends and the member does not satisfy the eligibility conditions for any of the retirement benefits above, the member may elect to receive a refund of his or her employee contributions, which are credited annually with 6% interest.

1959 Survivor Benefits Program

For these benefits, please refer to the 1959 Survivor Benefit Program Actuarial Valuation Report available on our website. This benefit is only available to members who are not covered by Social Security.

State Industrial Tier 2

The following is a summary of the major plan provisions applicable to State Industrial Tier 2 Members. Many of the statements in this summary are general in nature and intended to provide an easily understood summary of the complex Public Employees' Retirement Law. The law itself governs in all situations.

Tier 2 Members Electing Tier 1 Benefits

State Industrial Tier 2 members have the right to convert their Tier 2 service to Tier 1 service provided they make up the shortfall in their accumulated contributions with interest. In this valuation, we have assumed that all State Industrial Tier 2 members eligible to convert their Tier 2 service to Tier 1 service will elect to do so.

Service Retirement

Eligibility

A CalPERS member becomes eligible for Service Retirement upon attainment of age 55 with at least 10 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Appendix B – Principal Plan Provisions

State Industrial Tier 2 (continued)

Benefit

The Service Retirement benefit calculated for service earned by this group of employees is a monthly allowance equal to the product of the *benefit factor*, *years of service*, and *final compensation*, where

- The benefit factor for Classic employees comes from the **1.25% at 65** Tier 2 benefit factor table. PEPRA members are subject to the **1.25% at 67** benefit factor table. The factor depends on the member's age at retirement. Listed below are the factors for retirement at whole year ages:

Retirement Age	1.25% @ 65 Tier 2 Factor	1.25% @ 67 Tier 2 Factor
50	0.500%	N/A
51	0.550%	N/A
52	0.600%	N/A
53	0.650%	N/A
54	0.700%	N/A
55	0.750%	0.770%
56	0.800%	0.810%
57	0.850%	0.850%
58	0.900%	0.890%
59	0.950%	0.930%
60	1.000%	0.970%
61	1.050%	1.010%
62	1.100%	1.050%
63	1.150%	1.090%
64	1.200%	1.130%
65	1.250%	1.170%
66	1.250%	1.210%
67 & Up	1.250%	1.250%

- The *years of service* is the amount credited by CalPERS to a member while he or she is employed in this group (or for other periods that are recognized under the employer's contract with CalPERS). For a member who has earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance. Any unused sick leave accumulated at the time of retirement will be converted to credited service at the rate of 0.004 years of service for each day of sick leave.
- The *final compensation* is the monthly average of the member's highest 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). For some new members hired after July 1, 2006, and for all new members hired on or after January 15, 2011, final compensation is based on the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. PEPRA members have a cap on the annual salary used to calculate final compensation based on the Social Security Contribution and Benefit Base. For employees who participate in Social Security this cap is \$151,446 for 2024 and for those employees who do not participate in Social Security the cap for 2024 is \$181,734. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers.
- The employees in this group may or may not be covered by Social Security. The final compensation is not offset by a dollar amount.
- The Service Retirement benefit is not capped.

Appendix B – Principal Plan Provisions

State Industrial Tier 2 (continued)

Vested Deferred Retirement

Eligibility for Deferred Status

A CalPERS member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, and has earned at least 10 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Eligibility to Start Receiving Benefits

The CalPERS member becomes eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 55.

Benefit

The vested deferred retirement benefit is the same as the Service Retirement benefit where the benefit factor is based on the member's age at allowance commencement. For members who have earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, then added together for the total allowance.

Non-Industrial (Non-Job Related) Disability Retirement

Eligibility

A CalPERS member is eligible for Non-Industrial Disability Retirement if he or she becomes *disabled* and has at least 10 years of credited service (total service across all PERS employers, and with certain other Retirement Systems with which PERS has reciprocity agreements). There is no special age requirement. *Disabled* means the member is unable to perform his or her job because of an illness or injury which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job-related. A CalPERS member must be actively working with any CalPERS employer at the time of disability in order to be eligible for this benefit.

Benefit

The Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.125% of final compensation, multiplied by service, which is determined as follows:

- Service is CalPERS credited service, for members with greater than 29.628 years of service; or
- Service is CalPERS credited service plus the additional number of years that the member would have worked until age 65, for members with less than 29.628 years of service. The maximum benefit in this case is 33-1/3% of Final Compensation.

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members who are eligible to retire and have attained the normal retirement age determined by their service retirement benefit formula will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

Appendix B – Principal Plan Provisions

State Industrial Tier 2 (continued)

Industrial (Job-Related) Disability Retirement

Eligibility

An employee is eligible for Industrial Disability Retirement if he or she becomes disabled while working, where disabled means the member is unable to perform the duties of the job because of a work-related illness or injury which is expected to be permanent or to last indefinitely. A CalPERS member who has left active employment within this group is not eligible for this benefit, except to the extent described in the next paragraph.

Benefit

The Industrial Disability Retirement benefit is a monthly allowance equal to 50% of final compensation, plus an annuity purchased with the accumulated additional contributions, if any. However, if a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit, plus an annuity purchased with the accumulated additional contributions, if any. For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return or annuitization of the accumulated member contributions with respect to employment in this group.

Post-Retirement Death Benefit

Lump Sum Payment

Upon the death of a retiree, a one-time lump sum payment of \$2,000 will be made to the retiree's designated survivor(s) or the retiree's estate.

Form of Payment for Retirement Allowance

Generally, the retirement allowance is paid to the retiree in the form of an annuity for as long as he or she is alive. The retiree may choose to provide for a portion of his or her allowance to be paid to any designated beneficiary after the retiree's death. CalPERS provides for a variety of such benefit options, which the retiree pays for by taking a reduction in his or her retirement allowance. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

For retirement allowances with respect to service earned by employment in this group, 50% of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, without a reduction in the retiree's allowance. This additional benefit is often referred to as post-retirement survivor allowance (PRSA) or simply as *survivor continuance*.

In other words, 50% of the allowance, the *continuance portion*, is paid to the retiree for as long as he or she is alive, and that same amount is continued to the retiree's spouse (or if no eligible spouse, to unmarried children until they attain age 18; unless they are disabled, or, if no eligible children, to a qualifying dependent parent) for the rest of his or her lifetime.

The remaining 50% of the retirement allowance, which may be referred to as the *option portion* of the benefit, is paid to the retiree as an annuity for as long as he or she is alive. Or, the retiree may choose to provide for some of this *option portion* to be paid to any designated beneficiary after the retiree's death. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*. If there is no eligible survivor, then the option portion is 100% of the retirement allowance.

Appendix B – Principal Plan Provisions

State Industrial Tier 2 (continued)

Pre-Retirement Death Benefits

Group Term Life Insurance

Eligibility

An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any state employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit

The benefit is a lump sum payment of \$5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount will not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

Basic Death Benefit

Eligibility

An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. A member's survivor who is eligible for any other pre-retirement death benefit described below may choose to receive that death benefit instead of this Basic Death benefit.

Benefit

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is the greater of 6% or the prevailing discount rate. In addition, a lump sum in the amount of six months' salary shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.

Special Death Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the Special Death benefit if the member dies while actively employed and the death is job-related. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 22. An eligible survivor who chooses to receive this benefit will not receive any other death benefit.

Benefit

The Special Death benefit is a monthly allowance equal to 50% of final compensation. The allowance will be increased whenever the compensation paid to active employees is increased but ceases to increase when the member would have attained age 50. The allowance is payable to the surviving spouse until death, at which time the allowance is continued to any unmarried children under age 22. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Appendix B – Principal Plan Provisions

State Industrial Tier 2 (continued)

If the member's death is the result of an accident or injury caused by external violence or physical force incurred in the performance of the member's duty, and there are *eligible* surviving children (*eligible* means unmarried children under age 22) in addition to an eligible spouse, then an additional monthly allowance is paid equal to the following:

- If 1 eligible child: 12.5% of final compensation
- If 2 eligible children: 20.0% of final compensation
- If 3 or more eligible children: 25.0% of final compensation

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

Eligibility

This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

Benefit

The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

1957 Survivor Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the 1957 Survivor benefit if the member dies while actively employed and has attained retirement eligibility. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death or, if there is no eligible spouse, to the member's unmarried children under age 18. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the Special Death benefit.

Benefit

The 1957 Survivor benefit is a monthly allowance equal to one-half of the unmodified Service Retirement benefit that the member would have been entitled to receive if the member had retired on the date of his or her death. If the benefit is payable to the spouse, the benefit is discontinued upon the death of the spouse. If the benefit is payable to a dependent child, the benefit will be discontinued upon death or attainment of age 18. There is a guarantee that the total amount paid will at least equal the Basic Death benefit.

Appendix B – Principal Plan Provisions

State Industrial Tier 2 (continued)

Optional Settlement 2W Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed and has attained retirement eligibility. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the 1957 Survivor benefit.

Benefit

The Optional Settlement 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

Retirement and survivor allowances are adjusted each year in May for COLA, beginning the second calendar year after the year of retirement. Retirement and survivor allowances will be annually adjusted on a compound basis by 3%.

Purchasing Power Protection Allowance (PPPA)

Retirement and survivor allowances are protected against inflation by PPPA. PPPA benefits are cost-of-living adjustments that are intended to maintain an individual's allowance at 75% of the initial allowance at retirement adjusted for inflation since retirement. The PPPA benefit will be coordinated with other cost-of-living adjustments provided under the plan. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Employee Contributions

Each employee contributes toward his or her retirement based upon one of the following schedules. The employer may choose to "pick up" these contributions for the employees.

- The percent contributed above the monthly compensation breakpoint is 3.75%.
- The monthly compensation breakpoint is \$0.
- The percent contributed below the monthly compensation breakpoint is 0%.

Refund of Employee Contributions

If the member's service with the employer ends and the member does not satisfy the eligibility conditions for any of the retirement benefits above, the member may elect to receive a refund of his or her employee contributions, which are credited annually with 6% interest.

1959 Survivor Benefits Program

For these benefits, please refer to the 1959 Survivor Benefit Program Actuarial Valuation Report available on our website. This benefit is only available to members who are not covered by Social Security.

Appendix B – Principal Plan Provisions

State Safety

The following is a summary of the major plan provisions for the most representative group used in calculating the liabilities of the plan. Many of the statements in this summary are general in nature and intended to provide an easily understood summary of the complex Public Employees' Retirement Law. The law itself governs in all situations.

Service Retirement

Eligibility

Members become eligible for Service Retirement upon attainment of age 50 with at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Benefit

The Service Retirement benefit calculated for service earned by this group of employees is a monthly allowance equal to the product of the *benefit factor*, *years of service*, and *final compensation*, where

- The *benefit factor* for this group of employees comes from the **2.5% at 55** Safety benefit factor table. Classic members hired on or after January 15, 2011, are subject to either the **2.5% at 60** Safety or the **2% at 55** Safety benefit factor table. PEPRAs are subject to the **2% at 57** benefit factor table. The factor depends on the member's age at retirement. Listed below are the factors for retirement at whole year ages:

Retirement Age	2.5% @ 55 Factor	2.5% @ 60 Factor	2% @ 55 Factor	2% @ 57 Factor
50	1.700%	1.426%	1.426%	1.426%
51	1.800%	1.522%	1.522%	1.508%
52	1.900%	1.628%	1.628%	1.590%
53	2.000%	1.742%	1.742%	1.672%
54	2.250%	1.866%	1.866%	1.754%
55	2.500%	2.000%	2.000%	1.836%
56	2.500%	2.100%	2.000%	1.918%
57	2.500%	2.200%	2.000%	2.000%
58	2.500%	2.300%	2.000%	2.000%
59	2.500%	2.400%	2.000%	2.000%
60 & Up	2.500%	2.500%	2.000%	2.000%

- The *years of service* is the amount credited by CalPERS to a member while he or she is employed in this group (or for other periods that are recognized under the employer's contract with CalPERS). For a member who has earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, then added together for the total allowance. Any unused sick leave accumulated at the time of retirement will be converted to credited service at the rate of 0.004 years of service for each day of sick leave.
- The *final compensation* is the monthly average of the member's highest 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). For some new members hired after July 1, 2006, and for all new members hired on or after January 15, 2011, final compensation is based on the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. PEPRAs have a cap on the annual salary used to calculate final compensation based on the Social Security Contribution and Benefit Base. For employees who participate in Social Security this cap is \$151,446 for 2024 and for those employees who do not participate in Social Security the cap for 2024 is \$181,734. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers.
- The employees in this group are not covered by Social Security. The final compensation is not offset by a dollar amount.
- The Service Retirement benefit for Classic members is capped at 80% of final compensation.

State Safety (continued)

Vested Deferred Retirement

Eligibility for Deferred Status

A member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, and has earned at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Eligibility to Start Receiving Benefits

A member becomes eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50.

Benefit

The vested deferred retirement benefit is the same as the Service Retirement benefit, where the benefit factor is based on the member's age at allowance commencement. For members who have earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, then added together for the total allowance.

Non-Industrial (Non-Job Related) Disability Retirement

Eligibility

A CalPERS member is eligible for Non-Industrial Disability Retirement if he or she becomes disabled and has at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). There is no special age requirement. Disabled means the member is unable to perform his or her job because of an illness or injury which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job-related. A CalPERS member must be actively working with any CalPERS employer at the time of disability in order to be eligible for this benefit.

Benefit

The Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.8% of final compensation multiplied by *service*, which is determined as follows:

- *Service* is CalPERS credited service, for members with less than 10 years of service or greater than 18.518 years of service; or
- *Service* is CalPERS credited service plus the additional number of years that the member would have worked until age 60, for members with at least 10 years but not more than 18.518 years of service. The maximum benefit in this case is 33-1/3% of Final Compensation.

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members who are eligible to retire and have attained the normal retirement age determined by their service retirement benefit formula will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

Appendix B – Principal Plan Provisions

State Safety (continued)

Industrial (Job-Related) Disability Retirement

Eligibility

An employee is eligible for Industrial Disability Retirement if he or she becomes *disabled* while working, where *disabled* means the member is unable to perform the duties of the job because of a work-related illness or injury which is expected to be permanent or to last indefinitely. A CalPERS member who has left active employment within this group is not eligible for this benefit, except to the extent described in the next paragraph.

Benefit

The Industrial Disability Retirement benefit is a monthly allowance equal to 50% of final compensation, plus an annuity purchased with the accumulated additional contributions, if any. However, if a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit, plus an annuity purchased with the accumulated additional contributions, if any. For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return or annuitization of the accumulated member contributions with respect to employment in this group.

Post-Retirement Death Benefit

Lump Sum Payment

Upon the death of a retiree, a one-time lump sum payment of \$2,000 will be made to the retiree's designated survivor(s) or the retiree's estate.

Form of Payment for Retirement Allowance

Generally, the retirement allowance is paid to the retiree in the form of an annuity for as long as he or she is alive. The retiree may choose to provide for a portion of his or her allowance to be paid to any designated beneficiary after the retiree's death. CalPERS provides for a variety of such benefit options, which the retiree pays for by taking a reduction in his or her retirement allowance. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

For retirement allowances with respect to service earned by employment in this group, 50% of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, *without* a reduction in the retiree's allowance. This additional benefit is often referred to as *post-retirement survivor allowance* (PRSA) or simply as *survivor continuance*.

In other words, 50% of the allowance, the *continuance portion*, is paid to the retiree for as long as he or she is alive, and that same amount is continued to the retiree's spouse (or if no eligible spouse, to unmarried children until they attain age 18; unless they are disabled, or, if no eligible children, to a qualifying dependent parent) for the rest of his or her lifetime.

The remaining 50% of the retirement allowance, which may be referred to as the *option portion* of the benefit, is paid to the retiree as an annuity for as long as he or she is alive. The retiree may choose to provide for some of this *option portion* to be paid to any designated beneficiary after the retiree's death. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*. If there is no eligible survivor, then the option portion is 100% of the retirement allowance.

Appendix B – Principal Plan Provisions

State Safety (continued)

Pre-Retirement Death Benefits

Group Term Life Insurance

Eligibility

An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any state employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit

The benefit is a lump sum payment of \$5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount will not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

Basic Death Benefit

Eligibility

An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. A member's survivor who is eligible for any other pre-retirement death benefit described below may choose to receive that death benefit instead of this Basic Death benefit.

Benefit

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is the greater of 6% or the prevailing discount rate. In addition, a lump sum in the amount of six months' salary shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.

Special Death Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the Special Death benefit if the member dies while actively employed and the death is job-related. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 22. An eligible survivor who chooses to receive this benefit will not receive any other death benefit.

Benefit

The Special Death benefit is a monthly allowance equal to 50% of final compensation. The allowance will be increased whenever the compensation paid to active employees is increased but ceases to increase when the member would have attained age 50. The allowance is payable to the surviving spouse until death, at which time the allowance is continued to any unmarried children under age 22. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Appendix B – Principal Plan Provisions

State Safety (continued)

If the member's death is the result of an accident or injury caused by external violence or physical force incurred in the performance of the member's duty, and there are *eligible* surviving children (*eligible* means unmarried children under age 22) in addition to an eligible spouse, then an additional monthly allowance is paid equal to the following:

- If 1 eligible child: 12.5% of final compensation
- If 2 eligible children: 20.0% of final compensation
- If 3 or more eligible children: 25.0% of final compensation

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

Eligibility

This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

Benefit

The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

1957 Survivor Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the 1957 Survivor benefit if the member dies while actively employed, has attained at least age 50, and has at least five years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death or, if there is no eligible spouse, to the member's unmarried children under age 18. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the Special Death benefit.

Benefit

The 1957 Survivor benefit is a monthly allowance equal to one-half of the unmodified Service Retirement benefit that the member would have been entitled to receive if the member had retired on the date of his or her death. If the benefit is payable to the spouse, the benefit is discontinued upon the death of the spouse. If the benefit is payable to a dependent child, the benefit will be discontinued upon death or attainment of age 18. There is a guarantee that the total amount paid will at least equal the Basic Death benefit.

Appendix B – Principal Plan Provisions

State Safety (continued)

Optional Settlement 2W Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50, and has at least five years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the 1957 Survivor benefit.

Benefit

The Optional Settlement 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

Retirement and survivor allowances are adjusted each year in May for cost of living, beginning the second calendar year after the year of retirement. The standard cost-of-living adjustment (COLA) is 2%. Annual adjustments are calculated by first determining the lesser of 1) 2% compounded from the end of the year of retirement or 2) actual rate of inflation. The resulting increase is divided by the total increase provided in prior years. For any particular year, the COLA adjustment may be less than 2% (when the rate of inflation is low), may be greater than the rate of inflation (when the rate of inflation is low after several years of high inflation) or may even be greater than 2% (when inflation is high after several years of low inflation).

Purchasing Power Protection Allowance (PPPA)

Retirement and survivor allowances are protected against inflation by PPPA. PPPA benefits are cost-of-living adjustments that are intended to maintain an individual's allowance at 75% of the initial allowance at retirement adjusted for inflation since retirement. The PPPA benefit will be coordinated with other cost-of-living adjustments provided under the plan. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Employee Contributions

Each employee contributes toward his or her retirement based upon the following schedule. The employer may choose to "pick up" these contributions for the employees.

The active population is subject to the following schedule:

- The percent contributed below the monthly compensation breakpoint is 0%.
- The monthly compensation breakpoint is \$317.
- The percent contributed above the monthly compensation breakpoint is 6% to 11.5%, or half of the normal cost, depending on bargaining unit.

Appendix B – Principal Plan Provisions

State Safety (continued)

Refund of Employee Contributions

If the member's service with the employer ends, and if the member does not satisfy the eligibility conditions for any of the retirement benefits above, the member may elect to receive a refund of his or her employee contributions, which are credited annually with 6% interest.

1959 Survivor Benefits Program

For these benefits, please refer to the 1959 Survivor Benefit Program Actuarial Valuation Report available on our website. This benefit is only available to members who are not covered by Social Security.

State Peace Officers and Firefighters

The following is a summary of the major plan provisions for the most representative group used in calculating the liabilities of this plan. Many of the statements in this summary are general in nature and intended to provide an easily understood summary of the complex Public Employees' Retirement Law. The law itself governs in all situations.

Service Retirement

Eligibility

Members become eligible for Service Retirement upon attainment of age 50 with at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Benefit

The Service Retirement benefit calculated for service earned by this group of employees is a monthly allowance equal to the product of the *benefit factor*, *years of service*, and *final compensation*, where

- The *benefit factor* for this group of employees comes from either the **3% at 55** or the **3% at 50** benefit factor table. New Classic members, except firefighters, hired on or after January 15, 2011, are subject to the **2.5% at 55** Safety benefit factor table. New Classic firefighters hired on or after October 31, 2010, are subject to the **3% at 55** benefit factor table. The factor depends on the member's age at retirement. PEPRAs members are subject to the **2.5% at 57** or **2.7% at 57** benefit factor table. Listed below are the factors for retirement at whole year ages:

Retirement Age	3% @ 50 Factor	3% @ 55 Factor	2.5% @ 55 Factor	2.5% @ 57 Factor	2.7% @ 57 Factor
50	3.000%	2.400%	2.000%	2.000%	2.000%
51	3.000%	2.520%	2.100%	2.071%	2.100%
52	3.000%	2.640%	2.200%	2.143%	2.200%
53	3.000%	2.760%	2.300%	2.214%	2.300%
54	3.000%	2.880%	2.400%	2.286%	2.400%
55	3.000%	3.000%	2.500%	2.357%	2.500%
56	3.000%	3.000%	2.500%	2.429%	2.600%
57 & Up	3.000%	3.000%	2.500%	2.500%	2.700%

- The *years of service* is the amount credited by CalPERS to a member while he or she is employed in this group (or for other periods that are recognized under the employer's contract with CalPERS). For a member who has earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, then added together for the total allowance. Any unused sick leave accumulated at the time of retirement will be converted to credited service at the rate of 0.004 years of service for each day of sick leave.

Appendix B – Principal Plan Provisions

State Peace Officers and Firefighters (continued)

- The *final compensation* is the monthly average of the member's highest 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). For some new members hired after January 1, 2007, and for all new members hired on or after January 15, 2011, final compensation is based on the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. PEPRAs have a cap on the annual salary used to calculate final compensation based on the Social Security Contribution and Benefit Base. For employees who participate in Social Security this cap is \$151,446 for 2024 and for those employees who do not participate in Social Security the cap for 2024 is \$181,734. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers.
- The employees in this group are not covered by Social Security. The final compensation is not offset by a dollar amount.
- The Service Retirement benefit for Classic members is capped at 90% of final compensation.

Vested Deferred Retirement

Eligibility for Deferred Status

A CalPERS member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, and has earned at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Eligibility to Start Receiving Benefits

Members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50.

Benefit

The vested deferred retirement benefit is the same as the Service Retirement benefit, where the benefit factor is based on the member's age at allowance commencement. For members who have earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, then added together for the total allowance.

Non-Industrial (Non-Job Related) Disability Retirement

Eligibility

A CalPERS member is eligible for Non-Industrial Disability Retirement if he or she becomes *disabled* and has at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). There is no special age requirement. *Disabled* means the member is unable to perform his or her job because of an illness or injury which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job-related. A CalPERS member must be actively working with any CalPERS employer at the time of disability in order to be eligible for this benefit.

Benefit

The Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.8% of final compensation multiplied by *service*, which is determined as follows:

- *Service* is CalPERS credited service, for members with less than 10 years of service or greater than 18.518 years of service; or
- *Service* is CalPERS credited service plus the additional number of years that the member would have worked until age 60, for members with at least 10 years but not more than 18.518 years of service. The maximum benefit in this case is 33-1/3% of Final Compensation.

Appendix B – Principal Plan Provisions

State Peace Officers and Firefighters (continued)

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members who are eligible to retire and have attained the normal retirement age determined by their service retirement benefit formula will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

Industrial (Job-Related) Disability Retirement

Eligibility

An employee is eligible for Industrial Disability Retirement if he or she becomes *disabled* while working, where *disabled* means the member is unable to perform the duties of the job because of a work-related illness or injury which is expected to be permanent or to last indefinitely. A CalPERS member who has left active employment within this group is not eligible for this benefit, except to the extent described in the next paragraph.

Benefit

The Industrial Disability Retirement benefit is a monthly allowance equal to 50% of final compensation, plus an annuity purchased with the accumulated additional contributions, if any. However, if a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit, plus an annuity purchased with the accumulated additional contributions, if any. For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return or annuitization of the accumulated member contributions with respect to employment in this group.

Post-Retirement Death Benefit

Lump Sum Payment

Upon the death of a retiree, a one-time lump sum payment of \$2,000 will be made to the retiree's designated survivor(s) or the retiree's estate.

Form of Payment for Retirement Allowance

Generally, the retirement allowance is paid to the retiree in the form of an annuity for as long as he or she is alive. The retiree may choose to provide for a portion of his or her allowance to be paid to any designated beneficiary after the retiree's death. CalPERS provides for a variety of such benefit options, which the retiree pays for by taking a reduction in his or her retirement allowance. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

For retirement allowances with respect to service earned by employment in this group, 50% of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, without a reduction in the retiree's allowance. This additional benefit is often referred to as *post retirement survivor allowance* (PRSA) or simply as *survivor continuance*.

In other words, 50% of the allowance, the *continuance portion*, is paid to the retiree for as long as he or she is alive, and that same amount is continued to the retiree's spouse (or if no eligible spouse, to unmarried children until they attain age 18; unless they are disabled, or, if no eligible children, to a qualifying dependent parent) for the rest of his or her lifetime.

The remaining 50% of the retirement allowance, which may be referred to as the *option portion* of the benefit, is paid to the retiree as an annuity for as long as he or she is alive. The retiree may choose to provide for some of this *option portion* to be paid to any designated beneficiary after the retiree's death. Benefit options applicable to the *option portion* are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the *option portion*. If there is no eligible survivor, then the option portion is 100% of the retirement allowance.

Appendix B – Principal Plan Provisions

State Peace Officers and Firefighters (continued)

Pre-Retirement Death Benefits

Group Term Life Insurance

Eligibility

An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any state employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit

The benefit is a lump sum payment of \$5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount will not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

Basic Death Benefit

Eligibility

An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. A member's survivor who is eligible for any other pre-retirement death benefit described below may choose to receive that death benefit instead of this Basic Death benefit.

Benefit

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is the greater of 6% or the prevailing discount rate. In addition, a lump sum in the amount of six months' salary shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.

Special Death Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the Special Death benefit if the member dies while actively employed and the death is job-related. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 22. An eligible survivor who chooses to receive this benefit will not receive any other death benefit.

Benefit

The Special Death benefit is a monthly allowance equal to 50% of final compensation. The allowance will be increased whenever the compensation paid to active employees is increased but ceases to increase when the member would have attained age 50. The allowance is payable to the surviving spouse until death, at which time the allowance is continued to any unmarried children under age 22. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Appendix B – Principal Plan Provisions

State Peace Officers and Firefighters (continued)

If the member's death is the result of an accident or injury caused by external violence or physical force incurred in the performance of the member's duty, and there are *eligible* surviving children (*eligible* means unmarried children under age 22) in addition to an eligible spouse, then an additional monthly allowance is paid equal to the following:

- If 1 eligible child: 12.5% of final compensation
- If 2 eligible children: 20.0% of final compensation
- If 3 or more eligible children: 25.0% of final compensation

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

Eligibility

This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

Benefit

The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

1957 Survivor Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the 1957 Survivor benefit if the member dies while actively employed, has attained at least age 50, and has at least five years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death or, if there is no eligible spouse, to the member's unmarried children under age 18. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the Special Death benefit.

Benefit

The 1957 Survivor benefit is a monthly allowance equal to one-half of the unmodified Service Retirement benefit that the member would have been entitled to receive if the member had retired on the date of his or her death. If the benefit is payable to the spouse, the benefit is discontinued upon the death of the spouse. If the benefit is payable to a dependent child, the benefit will be discontinued upon death or attainment of age 18. There is a guarantee that the total amount paid will at least equal the Basic Death benefit.

Appendix B – Principal Plan Provisions

State Peace Officers and Firefighters (continued)

Optional Settlement 2W Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50, and has at least five years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the 1957 Survivor benefit.

Benefit

The Optional Settlement 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

Retirement and survivor allowances are adjusted each year in May for cost of living, beginning the second calendar year after the year of retirement. The standard cost-of-living adjustment (COLA) is 2%. Annual adjustments are calculated by first determining the lesser of 1) 2% compounded from the end of the year of retirement or 2) actual rate of inflation. The resulting increase is divided by the total increase provided in prior years. For any particular year, the COLA adjustment may be less than 2% (when the rate of inflation is low), may be greater than the rate of inflation (when the rate of inflation is low after several years of high inflation) or may even be greater than 2% (when inflation is high after several years of low inflation).

Purchasing Power Protection Allowance (PPPA)

Retirement and survivor allowances are protected against inflation by PPPA. PPPA benefits are cost-of-living adjustments that are intended to maintain an individual's allowance at 75% of the initial allowance at retirement adjusted for inflation since retirement. The PPPA benefit will be coordinated with other cost-of-living adjustments provided under the plan. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Employee Contributions

Each employee contributes toward his or her retirement based upon one of the following schedules. The employer may choose to "pick up" these contributions for the employees.

Most of the active population has a monthly compensation breakpoint of \$238, \$513, or \$863 and is subject to the following schedule:

- The percent contributed below the monthly compensation breakpoint is 0%.
- The percent contributed above the monthly compensation breakpoint is 13% to 15%.

A small portion of the Classic members have a monthly compensation breakpoint of \$238 and are subject to the following schedule:

- The percent contributed below the monthly compensation breakpoint is 0%.
- The percent contributed above the monthly compensation breakpoint is 8%.

Appendix B – Principal Plan Provisions

State Peace Officers and Firefighters (continued)

A small portion of the PEPRA members have a monthly compensation breakpoint of \$0 and are subject to the following schedule:

- The percent contributed below the monthly compensation breakpoint is 0%.
- The percent contributed above the monthly compensation breakpoint is half of the total normal cost. See the “PEPRA Member Contribution Rates” section of this report for more information.

Refund of Employee Contributions

If the member's service with the employer ends and the member does not satisfy the eligibility conditions for any of the retirement benefits above, the member may elect to receive a refund of his or her employee contributions, which are credited annually with 6% interest.

1959 Survivor Benefits Program

For these benefits, please refer to the 1959 Survivor Benefit Program Actuarial Valuation Report available on our website. This benefit is only available to members who are not covered by Social Security.

California Highway Patrol

The following is a summary of the major plan provisions used in calculating the liabilities of the plan. Many of the statements in this summary are general in nature and intended to provide an easily understood summary of the complex Public Employees' Retirement Law. The law itself governs in all situations.

Service Retirement

Eligibility

Members become eligible for Service Retirement upon attainment of age 50 with at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Benefit

The Service Retirement benefit calculated for service earned by this group of employees is a monthly allowance equal to the product of the *benefit factor*, *years of service*, and *final compensation*, where

- The *benefit factor* for this group of employees is **3% at 50**. Classic members hired on or after October 31, 2010, are subject to the **3% at 55** benefit factor table. PEPRA members are subject to the **2.7% at 57** benefit factor table.

Retirement Age	3% @ 50 Factor	3% @ 55 Factor	2.7% @ 57 Factor
50	3.000%	2.400%	2.000%
51	3.000%	2.520%	2.100%
52	3.000%	2.640%	2.200%
53	3.000%	2.760%	2.300%
54	3.000%	2.880%	2.400%
55	3.000%	3.000%	2.500%
56	3.000%	3.000%	2.600%
57 & Up	3.000%	3.000%	2.700%

- The *years of service* is the amount credited by CalPERS to a member while he or she is employed in this group (or for other periods that are recognized under the employer's contract with CalPERS including service at the CHP Academy for graduating members). For a member who has earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance. Any unused sick leave accumulated at the time of retirement will be converted to credited service at the rate of 0.004 years of service for each day of sick leave.

Appendix B – Principal Plan Provisions

California Highway Patrol (continued)

- The *final compensation* is the monthly average of the member's highest 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). The *final compensation* for an employee hired on or after October 31, 2010, is the monthly average of the member's highest 36 consecutive months' full-time equivalent monthly pay. PEPRA members have a cap on the annual salary used to calculate final compensation based on the Social Security Contribution and Benefit Base. For employees who participate in Social Security this cap is \$151,446 for 2024 and for those employees who do not participate in Social Security the cap for 2024 is \$181,734. Adjustments to the caps are permitted annually based on changes to the CPI for All Urban Consumers.
- The employees in this group are not covered by Social Security. The final compensation is not offset by a dollar amount.
- The Service Retirement benefit for Classic members is capped at 90% of final compensation.

Vested Deferred Retirement

Eligibility for Deferred Status

A member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, and has earned at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Eligibility to Start Receiving Benefits

Members become eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50.

Benefit

The vested deferred retirement benefit is the same as the Service Retirement benefit, where the benefit factor is based on the member's age at allowance commencement. For members who have earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, then added together for the total allowance.

Non-Industrial (Non-Job Related) Disability Retirement

Eligibility

A member is eligible for Non-Industrial Disability Retirement if he or she becomes *disabled* and has at least five years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). There is no special age requirement. *Disabled* means the member is unable to perform his or her job because of an illness or injury which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job-related. A CalPERS member must be actively working with any CalPERS employer at the time of disability in order to be eligible for this benefit.

Benefit

The Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.8% of final compensation multiplied by *service*, which is determined as follows:

- *Service* is CalPERS credited service, for members with less than 10 years of service or greater than 18.518 years of service; or
- *Service* is CalPERS credited service plus the additional number of years that the member would have worked until age 60, for members with at least 10 years but not more than 18.518 years of service. The maximum benefit in this case is 33-1/3% of Final Compensation.

Appendix B – Principal Plan Provisions

California Highway Patrol (continued)

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members who are eligible to retire and have attained the normal retirement age determined by their service retirement benefit formula will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

Industrial (Job-Related) Disability Retirement

Eligibility

An employee is eligible for Industrial Disability Retirement if he or she becomes *disabled* while working, where *disabled* means the member is unable to perform the duties of the job because of a work-related illness or injury which is expected to be permanent or to last indefinitely. A CalPERS member who has left active employment within this group is not eligible for this benefit, except to the extent described in the next paragraph.

Benefit

The Industrial Disability Retirement benefit is a monthly allowance equal to 50% of final compensation, plus an annuity purchased with the accumulated additional contributions, if any. However, if a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit, plus an annuity purchased with the accumulated additional contributions, if any. For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return or annuitization of the accumulated member contributions with respect to employment in this group.

Post-Retirement Death Benefit

Lump Sum Payment

Upon the death of a retiree, a one-time lump sum payment of \$2,000 will be made to the retiree's designated survivor(s) or the retiree's estate.

Form of Payment for Retirement Allowance

Generally, the retirement allowance is paid to the retiree in the form of an annuity for as long as he or she is alive. The retiree may choose to provide for a portion of his or her allowance to be paid to any designated beneficiary after the retiree's death. CalPERS provides for a variety of such benefit options, which the retiree pays for by taking a reduction in his or her retirement allowance. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

For retirement allowances with respect to service earned by employment in this group, 50% of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, *without* a reduction in the retiree's allowance. This additional benefit is often referred to as *post retirement survivor allowance* (PRSA) or simply as *survivor continuance*.

In other words, 50% of the allowance, the *continuance portion*, is paid to the retiree for as long as he or she is alive, and that same amount is continued to the retiree's spouse (or if no eligible spouse, to unmarried children until they attain age 18; unless they are disabled, or, if no eligible children, to a qualifying dependent parent) for the rest of his or her lifetime.

The remaining 50% of the retirement allowance, which may be referred to as the *option portion* of the benefit, is paid to the retiree as an annuity for as long as he or she is alive. The retiree may choose to provide for some of this option portion to be paid to any designated beneficiary after the retiree's death. Benefit options applicable to the option portion are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the option portion. If there is no eligible survivor, then the option portion is 100% of the retirement allowance.

Appendix B – Principal Plan Provisions

California Highway Patrol (continued)

Pre-Retirement Death Benefits

Group Term Life Insurance

Eligibility

An employee's beneficiary (or estate) will receive the Group Term Life Insurance benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any state employer is not eligible for this benefit. This benefit is in addition to other pre-retirement death benefits.

Benefit

The benefit is a lump sum payment of \$5,000 plus an additional amount equal to 50% of the annual compensation earned by the deceased member during the 12 months immediately preceding the member's death. The additional amount will not be paid if the member is eligible for service retirement or the Alternate Death Benefit.

For members with less than 20 years of service credit and not age-eligible to retire:

Basic Death Benefit

Eligibility

An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. A member's survivor who is eligible for any other pre-retirement death benefit described below may choose to receive that death benefit instead of this Basic Death benefit.

Benefit

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is the greater of 6% or the prevailing discount rate. In addition, a lump sum in the amount of six months' salary shall be paid only if the member is eligible for service retirement or eligible for the Alternate Death Benefit. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.

Special Death Benefit

Eligibility

An employee's eligible survivor(s) may receive the Special Death benefit if the member dies while actively employed and the death is job-related. A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An eligible survivor means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 22. An eligible survivor who chooses to receive this benefit will not receive any other death benefit.

Benefit

The Special Death benefit is a monthly allowance equal to 50% of final compensation. It will be increased whenever the compensation paid to active employees is increased but ceases to increase when the member would have attained age 50. The allowance is payable to the surviving spouse until death, at which time the allowance is continued to any unmarried children under age 22. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Appendix B – Principal Plan Provisions

California Highway Patrol (continued)

If the member's death is the result of an accident or injury caused by external violence or physical force incurred in the performance of the member's duty, and there are *eligible* surviving children (*eligible* means unmarried children under age 22) in addition to an eligible spouse, then an additional monthly allowance is paid equal to the following:

- If 1 eligible child: 12.5% of final compensation
- If 2 eligible children: 20.0% of final compensation
- If 3 or more eligible children: 25.0% of final compensation

For members with more than 20 years of service credit and not age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

Alternate Death Benefit

Eligibility

This benefit may be received in lieu of the lump sum Basic Death Benefit if there is a surviving spouse or minor child of the member. The member must have died before reaching the minimum retirement age and must have been credited with at least 20 years of state service.

Benefit

The Alternate Death Benefit is calculated as though the member were the minimum retirement age and elected an optional form of benefit that provided 100% continuance to the member's spouse. If the member did not have a spouse at the time of death, one-half of the formula benefit would be paid to the surviving child. If the benefit is payable to a surviving child, the benefit will be discontinued upon death or the attainment of age 18.

For members who are age-eligible to retire:

In addition to the above pre-retirement death benefits, members are eligible for:

1957 Survivor Benefit

Eligibility

An employee's *eligible survivor(s)* may receive the 1957 Survivor benefit if the member dies while actively employed, has attained at least age 50, and has at least five years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death or, if there is no eligible spouse, to the member's unmarried children under age 18. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the Special Death benefit.

Benefit

The 1957 Survivor benefit is a monthly allowance equal to one-half of the unmodified Service Retirement benefit that the member would have been entitled to receive if the member had retired on the date of his or her death. If the benefit is payable to the spouse, the benefit is discontinued upon the death of the spouse. If the benefit is payable to a dependent child, the benefit will be discontinued upon death or attainment of age 18. There is a guarantee that the total amount paid will at least equal the Basic Death benefit.

Appendix B – Principal Plan Provisions

California Highway Patrol (continued)

Optional Settlement 2W Death Benefit

Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50, and has at least five years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with any CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the 1957 Survivor Benefit.

Benefit

The Optional Settlement 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives. Upon the death of the surviving spouse, the benefit shall be continued to minor children. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

Cost-of-Living Adjustments

Retirement and survivor allowances are adjusted each year in May for cost of living, beginning the second calendar year after the year of retirement. The standard cost-of-living adjustment (COLA) is 2%. Annual adjustments are calculated by first determining the lesser of 1) 2% compounded from the end of the year of retirement or 2) actual rate of inflation. The resulting increase is divided by the total increase provided in prior years. For any particular year, the COLA adjustment may be less than 2% (when the rate of inflation is low), may be greater than the rate of inflation (when the rate of inflation is low after several years of high inflation) or may even be greater than 2% (when inflation is high after several years of low inflation).

Purchasing Power Protection Allowance (PPPA)

Retirement and survivor allowances are protected against inflation by PPPA. PPPA benefits are cost-of-living adjustments that are intended to maintain an individual's allowance at 75% of the initial allowance at retirement adjusted for inflation since retirement. The PPPA benefit will be coordinated with other cost-of-living adjustments provided under the plan. The total annual outlay for PPPA is limited to 1.1% of accumulated member contributions. If this amount of member contributions were insufficient to provide for PPPA payments, the 75% target would be proportionately reduced.

Employee Contributions

Each employee contributes toward his or her retirement based upon the following schedule. The employer may choose to "pick up" these contributions for the employees.

- The percent contributed below the monthly compensation breakpoint is 0%.
- The monthly compensation breakpoint is \$863.
- The percent contributed above the monthly compensation breakpoint is 13.5%.

Refund of Employee Contributions

If the member's service with the employer ends and the member does not satisfy the eligibility conditions for any of the retirement benefits above, the member may elect to receive a refund of his or her employee contributions, which are credited annually with 6% interest.

1959 Survivor Benefits Program

For these benefits, please refer to the 1959 Survivor Benefit Program Actuarial Valuation Report available on our website. This benefit is only available to members who are not covered by Social Security.

Appendix C – Participant Data

Source of Participant Information

The data was extracted from various databases within CalPERS and placed in a data warehouse by a series of extract programs. Included in this data is:

- Individual member and beneficiary information,
- Employment and payroll information,
- Accumulated contributions with interest,
- Service information,
- Benefit payment information,
- Information about the various organizations which contract with CalPERS, and
- Detailed information about the plan provisions applicable to each group of members.

Data Validation

Once the information is extracted from the various computer systems into the data warehouse, update queries are then run against this data to correct for flaws found in the data. This part of the process is intended to validate the participant data for all CalPERS plans. It is not specific to the State plans.

Checks on the data included:

- A reconciliation of the membership of the plans,
- Comparisons of various member statistics (average attained age, average entry age, average salary, etc.) for each plan with those from the prior valuation,
- Comparison of pension amounts for each retiree and beneficiary receiving payments with those from the prior valuation,
- Checks for invalid ages and dates, and
- Reasonableness checks on various key data elements such as service and salary.

As a result of the tests on the data, a number of adjustments were determined to be necessary, such as dates of hire and dates of entry being adjusted to be consistent with the service fields, the date of birth and each other.

Data Statement

The data does not contain information about reciprocal systems and hence salary information for separated participants covered by reciprocal systems may not be up to date. This situation is not expected to have a material impact on the employer contribution rates since the total present value for all separated participants represents less than 2% of the present value of benefits for all members. We are unaware of any other data issues that would have a material effect on the results of this valuation.

It is our opinion that, after the adjustments noted above, the participant data was sufficient and reliable for the purposes of the valuation.

Appendix C – Participant Data

Reconciliation of Participants

State Miscellaneous¹

	Active	Transfer	Separated	Receiving	Total
As of June 30, 2023	184,297	25,775	78,846	213,206	502,124
Retirement	(5,795)	(1,447)	(801)	8,043	-
Industrial Disabilities	(1)	(71)	(5)	77	-
Non-Industrial Disabilities	(167)	(48)	(10)	225	-
Deaths ²	(273)	(46)	(116)	(6,768)	(7,203)
New Survivors	n/a	n/a	n/a	1,690	1,690
Non-Vested Terminations ³	(4,515)	(417)	4,932	-	-
Vested Terminations	(2,314)	(443)	2,757	-	-
Refunds of Contributions	(506)	(73)	(1,269)	-	(1,848)
Transfer	(2,133)	3,284	(1,113)	(38)	-
Redeposits/Rehires	2,422	(491)	(1,878)	(53)	-
First Year in Status	18,534	655	1,136	25	20,350
Data Corrections ⁴	(25)	698	481	(83)	1,071
As of June 30, 2024	189,524	27,376	82,960	216,324	516,184

(1) Includes State Miscellaneous Tier 1 and Tier 2.

(2) Includes both deaths without survivors and deaths with survivors receiving a benefit.

(3) Includes non-vested separated participants with employee contributions left in the plan.

(4) May include the combining of data records into a single record.

Appendix C – Participant Data

Reconciliation of Participants (continued)

State Industrial

	Active	Transfer	Separated	Receiving	Total
As of June 30, 2023	11,609	7,996	4,482	18,014	42,101
Retirement	(360)	(359)	(51)	761	(9)
Industrial Disabilities	(4)	(16)	(1)	26	5
Non-Industrial Disabilities	(26)	(10)	(7)	47	4
Deaths ¹	(25)	(7)	(8)	(411)	(451)
New Survivors	n/a	n/a	n/a	95	95
Non-Vested Terminations ²	(297)	(60)	357	-	-
Vested Terminations	(140)	(124)	268	(4)	-
Refunds of Contributions	(40)	(23)	(85)	-	(148)
Transfer	(640)	812	(159)	(13)	-
Redeposits/Rehires	217	(109)	(103)	(5)	-
First Year in Status	1,547	74	99	39	1,759
Data Corrections ³	(34)	(3)	(16)	(47)	(100)
As of June 30, 2024	11,807	8,171	4,776	18,502	43,256

(1) Includes both deaths without survivors and deaths with survivors receiving a benefit.

(2) Includes non-vested separated participants with employee contributions left in the plan.

(3) May include the combining of data records into a single record.

State Safety

	Active	Transfer	Separated	Receiving	Total
As of June 30, 2023	26,371	6,112	10,790	31,293	74,566
Retirement	(764)	(204)	(158)	1,099	(27)
Industrial Disabilities	(165)	(16)	(28)	226	17
Non-Industrial Disabilities	(22)	(5)	(5)	42	10
Deaths ¹	(48)	(9)	(14)	(774)	(845)
New Survivors	n/a	n/a	n/a	237	237
Non-Vested Terminations ²	(626)	(81)	708	(1)	-
Vested Terminations	(482)	(114)	599	(3)	-
Refunds of Contributions	(196)	(23)	(351)	(1)	(571)
Transfer	(576)	774	(189)	(9)	-
Redeposits/Rehires	807	(133)	(646)	(28)	-
First Year in Status	3,627	93	299	117	4,136
Data Corrections ³	(58)	(22)	(19)	(10)	(109)
As of June 30, 2024	27,868	6,372	10,986	32,188	77,414

(1) Includes both deaths without survivors and deaths with survivors receiving a benefit.

(2) Includes non-vested separated participants with employee contributions left in the plan.

(3) May include the combining of data records into a single record.

Appendix C – Participant Data

Reconciliation of Participants (continued)

State Peace Officers and Firefighters

	Active	Transfer	Separated	Receiving	Total
As of June 30, 2023	41,482	5,690	9,268	49,558	105,998
Retirement	(1,327)	(173)	(143)	1,575	(68)
Industrial Disabilities	(376)	(28)	(40)	511	67
Non-Industrial Disabilities	(18)	(2)	(2)	23	1
Deaths ¹	(27)	(2)	(11)	(806)	(846)
New Survivors	n/a	n/a	n/a	346	346
Non-Vested Terminations ²	(982)	(79)	1,062	(1)	-
Vested Terminations	(428)	(61)	492	(3)	-
Refunds of Contributions	(99)	(6)	(178)	-	(283)
Transfer	(326)	584	(250)	(8)	-
Redeposits/Rehires	386	(61)	(315)	(10)	-
First Year in Status	2,906	53	193	133	3,285
Data Corrections ³	(93)	5	(31)	(91)	(210)
As of June 30, 2024	41,098	5,920	10,045	51,227	108,290

(1) Includes both deaths without survivors and deaths with survivors receiving a benefit.

(2) Includes non-vested separated participants with employee contributions left in the plan.

(3) May include the combining of data records into a single record.

California Highway Patrol

	Active	Transfer	Separated	Receiving	Total
As of June 30, 2023	6,458	246	641	10,252	17,597
Retirement	(242)	(13)	(37)	285	(7)
Industrial Disabilities	(89)	(3)	(4)	104	8
Non-Industrial Disabilities	(2)	n/a	(1)	2	(1)
Deaths ¹	(3)	(1)	(1)	(245)	(250)
New Survivors	n/a	n/a	n/a	112	112
Non-Vested Terminations ²	(10)	(2)	12	-	-
Vested Terminations	(30)	(10)	40	-	-
Refunds of Contributions	(2)	n/a	(6)	-	(8)
Transfer	(8)	22	(14)	-	-
Redeposits/Rehires	43	(3)	(40)	-	-
First Year in Status	440	3	22	9	474
Data Corrections ³	n/a	(1)	(6)	(2)	(9)
As of June 30, 2024	6,555	238	606	10,517	17,916

(1) Includes both deaths without survivors and deaths with survivors receiving a benefit.

(2) Includes non-vested separated participants with employee contributions left in the plan.

(3) May include the combining of data records into a single record.

Appendix C – Participant Data

Active Members

Distribution of Active Members by Age and Years of Service

State Miscellaneous – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	3,592	12	0	0	0	0	3,604	\$191,131,060
25 - 29	12,293	1,639	2	0	0	0	13,934	877,966,291
30 - 34	13,400	7,625	838	5	0	0	21,868	1,601,184,774
35 - 39	11,071	9,398	4,385	972	37	0	25,863	2,146,836,755
40 - 44	8,621	8,005	4,996	3,907	870	65	26,464	2,379,809,143
45 - 49	6,306	5,783	4,047	4,312	3,128	1,055	24,631	2,326,284,536
50 - 54	4,889	4,703	3,511	4,275	4,127	3,905	25,410	2,490,258,362
55 - 59	3,551	3,688	2,742	3,403	3,532	5,365	22,281	2,190,976,750
60 - 64	2,161	2,895	2,258	2,477	2,418	3,898	16,107	1,562,348,678
65 and over	1,243	1,743	1,485	1,551	1,287	2,053	9,362	896,310,088
Total	67,127	45,491	24,264	20,902	15,399	16,341	189,524	\$16,663,106,441

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. However, this does not result in double counting of liabilities.

Distribution of Average Annual Salaries by Age and Years of Service

State Miscellaneous – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+	
15 - 24	\$53,019	\$57,328	\$0	\$0	\$0	\$0	\$53,033
25 - 29	61,212	76,492	55,896	0	0	0	63,009
30 - 34	67,790	81,192	87,496	76,466	0	0	73,220
35 - 39	73,153	87,011	95,560	99,176	102,888	0	83,008
40 - 44	75,666	90,380	99,133	104,690	105,806	117,734	89,926
45 - 49	75,263	90,004	101,130	106,890	107,208	119,105	94,445
50 - 54	74,842	88,938	98,683	106,427	108,863	116,607	98,003
55 - 59	73,133	85,965	94,724	102,515	107,552	116,641	98,334
60 - 64	71,215	84,674	89,888	98,193	109,416	116,101	96,998
65 and over	66,041	82,640	91,342	99,396	107,845	117,670	95,739
Average	\$69,267	\$86,420	\$96,514	\$103,719	\$108,041	\$116,797	\$87,921

Appendix C – Participant Data

Active Members (continued)

Distribution of Active Members by Age and Years of Service

State Industrial – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	370	0	0	0	0	0	370	\$15,940,813
25 - 29	896	90	0	0	0	0	986	51,104,948
30 - 34	999	491	37	0	0	0	1,527	93,437,001
35 - 39	746	599	269	94	1	0	1,709	128,238,877
40 - 44	592	466	293	307	41	1	1,700	134,178,915
45 - 49	427	358	274	308	122	39	1,528	128,924,483
50 - 54	355	363	241	314	156	197	1,626	141,027,233
55 - 59	241	229	223	265	131	127	1,216	103,515,934
60 - 64	123	178	136	191	70	84	782	64,846,478
65 and over	46	81	76	88	30	42	363	30,166,260
Total	4,795	2,855	1,549	1,567	551	490	11,807	\$891,380,946

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. However, this does not result in double counting of liabilities.

Distribution of Average Annual Salaries by Age and Years of Service

State Industrial – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+	
15 - 24	\$43,083	\$0	\$0	\$0	\$0	\$0	\$43,083
25 - 29	50,705	63,032	0	0	0	0	51,831
30 - 34	57,041	68,545	75,611	0	0	0	61,190
35 - 39	66,162	79,063	85,981	88,225	101,311	0	75,037
40 - 44	70,154	81,012	87,153	83,462	89,743	58,205	78,929
45 - 49	73,844	86,221	92,549	87,401	86,689	94,154	84,375
50 - 54	81,228	87,090	93,412	84,983	87,265	90,189	86,733
55 - 59	78,300	87,970	91,462	84,000	83,543	85,830	85,128
60 - 64	75,854	88,489	87,167	81,793	77,694	81,545	82,924
65 and over	81,573	88,147	80,289	79,320	83,561	87,740	83,103
Average	\$62,891	\$80,545	\$88,887	\$84,482	\$85,045	\$87,618	\$75,496

Appendix C – Participant Data

Active Members (continued)

Distribution of Active Members by Age and Years of Service

State Safety – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	433	2	0	0	0	0	435	\$21,997,944
25 - 29	1,266	173	0	0	0	0	1,439	96,520,660
30 - 34	1,728	893	100	2	0	0	2,723	220,352,985
35 - 39	1,677	1,392	596	144	3	0	3,812	348,013,400
40 - 44	1,360	1,308	738	528	57	1	3,992	379,620,130
45 - 49	1,136	1,155	754	849	211	18	4,123	416,688,737
50 - 54	950	1,092	716	980	365	125	4,228	453,652,623
55 - 59	671	868	604	753	288	104	3,288	343,240,210
60 - 64	468	631	457	532	192	80	2,360	246,062,937
65 and over	196	333	335	377	139	88	1,468	174,848,180
Total	9,885	7,847	4,300	4,165	1,255	416	27,868	\$2,700,997,809

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. However, this does not result in double counting of liabilities.

Distribution of Average Annual Salaries by Age and Years of Service

State Safety – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+	
15 - 24	\$50,499	\$66,010	\$0	\$0	\$0	\$0	\$50,570
25 - 29	65,997	74,963	0	0	0	0	67,075
30 - 34	77,405	87,510	82,830	84,104	0	0	80,923
35 - 39	82,170	97,437	101,548	95,008	125,985	0	91,294
40 - 44	83,566	100,097	103,627	100,297	96,125	130,781	95,095
45 - 49	82,309	99,454	112,859	115,252	111,369	104,065	101,064
50 - 54	81,111	101,668	113,922	127,195	121,836	119,084	107,297
55 - 59	78,249	100,058	114,314	119,178	112,644	121,698	104,392
60 - 64	78,443	99,461	110,560	119,010	119,118	123,519	104,264
65 and over	83,828	105,465	116,644	143,771	129,027	137,340	119,106
Average	\$77,575	\$97,926	\$109,440	\$119,223	\$117,189	\$123,830	\$96,921

Appendix C – Participant Data

Active Members (continued)

Distribution of Active Members by Age and Years of Service

State Peace Officers and Firefighters – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	2,199	0	0	0	0	0	2,199	\$124,479,521
25 - 29	4,088	718	1	0	0	0	4,807	352,950,418
30 - 34	2,869	3,765	310	0	0	0	6,944	643,507,757
35 - 39	1,574	3,004	1,230	662	1	0	6,471	666,414,876
40 - 44	769	1,539	1,136	2,764	631	2	6,841	774,194,251
45 - 49	325	713	647	2,032	2,255	565	6,537	794,669,274
50 - 54	202	409	413	1,252	1,207	809	4,292	527,112,379
55 - 59	109	176	211	592	516	381	1,985	238,523,240
60 - 64	34	91	77	264	163	183	812	96,838,434
65 and over	8	15	23	50	51	63	210	25,233,719
Total	12,177	10,430	4,048	7,616	4,824	2,003	41,098	\$4,243,923,869

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. However, this does not result in double counting of liabilities.

Distribution of Average Annual Salaries by Age and Years of Service

State Peace Officers and Firefighters – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+	
15 - 24	\$56,607	\$0	\$0	\$0	\$0	\$0	\$56,607
25 - 29	69,382	96,355	134,974	0	0	0	73,424
30 - 34	76,028	103,626	113,641	0	0	0	92,671
35 - 39	79,327	106,128	115,899	120,914	145,980	0	102,985
40 - 44	83,441	106,690	113,989	120,526	131,427	138,701	113,170
45 - 49	87,284	108,172	115,474	120,188	129,242	139,467	121,565
50 - 54	98,083	111,049	118,837	118,691	127,934	135,702	122,813
55 - 59	105,469	115,575	116,875	116,727	122,725	130,176	120,163
60 - 64	114,027	121,158	109,930	114,199	122,594	127,542	119,259
65 and over	97,925	114,976	123,911	115,592	121,703	125,226	120,161
Average	\$72,235	\$105,271	\$115,409	\$119,621	\$128,203	\$134,641	\$103,264

Appendix C – Participant Data

Active Members (continued)

Distribution of Active Members by Age and Years of Service

California Highway Patrol – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	198	0	0	0	0	0	198	\$20,119,799
25 - 29	546	115	0	0	0	0	661	82,906,784
30 - 34	363	561	35	0	0	0	959	135,254,821
35 - 39	182	375	250	277	0	0	1,084	162,021,087
40 - 44	30	200	275	697	128	1	1,331	212,051,984
45 - 49	0	21	132	456	579	165	1,353	230,059,180
50 - 54	0	1	35	181	332	246	795	140,034,003
55 - 59	0	0	1	20	62	91	174	31,913,145
60 - 64	0	0	0	0	0	0	0	0
65 and over	0	0	0	0	0	0	0	0
Total	1,319	1,273	728	1,631	1,101	503	6,555	\$1,014,360,803

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. However, this does not result in double counting of liabilities.

Distribution of Average Annual Salaries by Age and Years of Service

California Highway Patrol – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+	
15 - 24	\$101,615	\$0	\$0	\$0	\$0	\$0	\$101,615
25 - 29	120,289	149,815	0	0	0	0	125,426
30 - 34	124,679	150,712	155,624	0	0	0	141,037
35 - 39	125,843	151,319	154,658	157,793	0	0	149,466
40 - 44	137,614	151,329	155,199	160,502	178,998	196,416	159,318
45 - 49	0	149,541	153,366	161,095	175,724	190,735	170,036
50 - 54	0	155,743	156,494	161,865	172,854	193,967	176,143
55 - 59	0	0	157,876	167,955	171,841	194,967	183,409
60 - 64	0	0	0	0	0	0	0
65 and over	0	0	0	0	0	0	0
Average	\$119,855	\$150,891	\$154,767	\$160,450	\$175,021	\$193,092	\$154,746

Appendix C – Participant Data

Transferred and Separated Participants

Distribution by Age and Years of Service – Transfers to Other CalPERS Plans

State Miscellaneous – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	360	0	0	0	0	0	360	\$72,065
25 - 29	1,605	37	0	0	0	0	1,642	81,795
30 - 34	2,937	367	7	0	0	0	3,311	87,794
35 - 39	2,923	687	120	15	1	0	3,746	89,844
40 - 44	2,696	842	327	98	15	1	3,979	94,535
45 - 49	2,563	859	380	195	52	4	4,053	99,104
50 - 54	2,369	897	390	257	103	39	4,055	100,843
55 - 59	1,715	691	337	208	121	53	3,125	97,629
60 - 64	1,176	422	219	137	68	33	2,055	90,659
65 and over	648	182	118	58	28	16	1,050	87,310
Total	18,992	4,984	1,898	968	388	146	27,376	\$93,414

Distribution by Age and Years of Service – Separated Participants with Funds on Deposit

State Miscellaneous – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	897	0	0	0	0	0	897	\$41,746
25 - 29	5,097	121	0	0	0	0	5,218	44,310
30 - 34	8,725	948	28	0	0	0	9,701	47,778
35 - 39	9,324	1,726	275	17	0	0	11,342	51,815
40 - 44	9,799	2,162	598	140	21	1	12,721	53,352
45 - 49	8,468	2,010	724	282	90	9	11,583	55,134
50 - 54	6,997	1,961	787	328	135	43	10,251	56,245
55 - 59	5,555	1,555	651	204	92	32	8,089	53,968
60 - 64	4,838	1,027	519	155	54	41	6,634	49,788
65 and over	5,343	636	366	110	42	27	6,524	44,595
Total	65,043	12,146	3,948	1,236	434	153	82,960	\$51,488

Appendix C – Participant Data

Transferred and Separated Participants (continued)

Distribution by Age and Years of Service – Transfers to Other CalPERS Plans

State Industrial – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	41	0	0	0	0	0	41	\$45,086
25 - 29	304	11	0	0	0	0	315	55,311
30 - 34	647	111	2	0	0	0	760	66,413
35 - 39	914	201	43	4	0	0	1,162	78,854
40 - 44	914	270	83	24	4	0	1,295	88,982
45 - 49	842	256	107	50	12	2	1,269	96,620
50 - 54	896	307	120	62	28	11	1,424	96,313
55 - 59	741	198	115	30	21	8	1,113	93,102
60 - 64	374	115	47	17	5	1	559	93,284
65 and over	178	39	11	3	1	1	233	86,523
Total	5,851	1,508	528	190	71	23	8,171	\$87,173

Distribution by Age and Years of Service – Separated Participants with Funds on Deposit

State Industrial – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	65	0	0	0	0	0	65	\$39,419
25 - 29	304	7	0	0	0	0	311	41,512
30 - 34	486	54	0	0	0	0	540	45,045
35 - 39	475	87	21	1	0	0	584	48,737
40 - 44	478	106	36	9	0	0	629	52,627
45 - 49	414	92	28	21	13	1	569	52,154
50 - 54	473	99	31	21	2	5	631	47,542
55 - 59	395	86	27	13	5	0	526	45,049
60 - 64	322	64	12	5	1	1	405	39,724
65 and over	452	55	6	1	0	2	516	37,378
Total	3,864	650	161	71	21	9	4,776	\$46,086

Appendix C – Participant Data

Transferred and Separated Participants (continued)

Distribution by Age and Years of Service – Transfers to Other CalPERS Plans

State Safety – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	40	0	0	0	0	0	40	\$51,997
25 - 29	297	4	0	0	0	0	301	66,797
30 - 34	631	74	1	0	0	0	706	75,855
35 - 39	710	181	38	8	0	0	937	88,707
40 - 44	730	262	70	27	1	0	1,090	95,437
45 - 49	701	241	90	30	2	1	1,065	102,420
50 - 54	629	204	104	36	9	1	983	104,051
55 - 59	434	133	72	28	5	1	673	105,216
60 - 64	266	90	27	16	2	1	402	101,021
65 and over	121	36	12	3	3	0	175	104,779
Total	4,559	1,225	414	148	22	4	6,372	\$94,790

Distribution by Age and Years of Service – Separated Participants with Funds on Deposit

State Safety – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	107	0	0	0	0	0	107	\$43,275
25 - 29	562	18	0	0	0	0	580	49,865
30 - 34	1,098	124	8	0	0	0	1,230	59,478
35 - 39	1,222	314	42	3	0	0	1,581	68,042
40 - 44	1,300	332	85	20	1	0	1,738	71,165
45 - 49	1,137	285	95	27	8	0	1,552	75,803
50 - 54	1,109	256	82	26	6	0	1,479	74,599
55 - 59	863	132	21	6	2	1	1,025	69,553
60 - 64	717	94	12	9	1	0	833	64,905
65 and over	801	38	12	8	1	1	861	66,871
Total	8,916	1,593	357	99	19	2	10,986	\$68,167

Appendix C – Participant Data

Transferred and Separated Participants (continued)

Distribution by Age and Years of Service – Transfers to Other CalPERS Plans

State Peace Officers and Firefighters – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	136	0	0	0	0	0	136	\$60,940
25 - 29	537	15	0	0	0	0	552	77,412
30 - 34	852	101	2	0	0	0	955	94,165
35 - 39	866	153	26	2	0	0	1,047	103,382
40 - 44	852	153	51	10	0	0	1,066	115,062
45 - 49	772	106	48	26	11	1	964	126,836
50 - 54	586	110	30	8	4	1	739	125,392
55 - 59	228	48	16	2	0	1	295	114,851
60 - 64	90	29	4	1	0	0	124	103,532
65 and over	29	8	2	1	0	2	42	97,712
Total	4,948	723	179	50	15	5	5,920	\$107,703

Distribution by Age and Years of Service – Separated Participants with Funds on Deposit

State Peace Officers and Firefighters – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	413	0	0	0	0	0	413	\$47,623
25 - 29	1,209	16	0	0	0	0	1,225	50,932
30 - 34	1,354	173	3	0	0	0	1,530	56,438
35 - 39	1,062	221	51	14	0	0	1,348	58,015
40 - 44	1,207	224	107	65	7	0	1,610	56,665
45 - 49	988	214	100	86	47	2	1,437	58,481
50 - 54	830	144	30	12	8	2	1,026	46,767
55 - 59	614	71	21	2	3	1	712	41,994
60 - 64	403	46	11	4	0	0	464	37,819
65 and over	246	21	7	4	2	0	280	38,999
Total	8,326	1,130	330	187	67	5	10,045	\$52,587

Appendix C – Participant Data

Transferred and Separated Participants (continued)

Distribution by Age and Years of Service – Transfers to Other CalPERS Plans

California Highway Patrol – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	1	0	0	0	0	0	1	\$82,322
25 - 29	7	0	0	0	0	0	7	92,675
30 - 34	18	7	0	0	0	0	25	115,541
35 - 39	28	8	4	1	0	0	41	112,862
40 - 44	21	5	4	3	0	0	33	122,637
45 - 49	30	11	7	1	0	0	49	127,431
50 - 54	34	6	7	2	2	0	51	128,713
55 - 59	18	2	1	0	0	0	21	118,202
60 - 64	5	1	1	1	0	0	8	118,719
65 and over	1	0	0	1	0	0	2	91,169
Total	163	40	24	9	2	0	238	\$120,659

Distribution by Age and Years of Service – Separated Participants with Funds on Deposit

California Highway Patrol – As of June 30, 2024

Attained Age	Years of Service at Valuation Date						Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20-24	25+		
15 - 24	5	0	0	0	0	0	5	\$72,753
25 - 29	24	0	0	0	0	0	24	80,914
30 - 34	46	16	0	0	0	0	62	96,963
35 - 39	46	29	18	1	0	0	94	104,684
40 - 44	36	32	29	12	1	0	110	110,733
45 - 49	52	51	33	21	15	1	173	108,249
50 - 54	52	16	7	1	0	1	77	77,987
55 - 59	31	4	3	0	0	1	39	65,645
60 - 64	8	4	1	0	0	0	13	59,860
65 and over	7	1	1	0	0	0	9	44,664
Total	307	153	92	35	16	3	606	\$97,047

Appendix C – Participant Data

Retired Members and Beneficiaries

Number of Retirees and Beneficiaries - by Age and Retirement Type

State Miscellaneous – As of June 30, 2024

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	1	0	11	7	253	272
30-34	0	7	14	0	2	171	194
35-39	0	27	19	0	0	254	300
40-44	0	73	46	9	6	338	472
45-49	1	172	66	30	7	420	696
50-54	1,464	457	126	88	4	541	2,680
55-59	8,668	883	274	147	12	843	10,827
60-64	22,019	1,580	437	265	19	1,511	25,831
65-69	35,450	2,140	522	337	13	2,562	41,024
70-74	38,458	2,120	430	358	9	3,846	45,221
75-79	31,525	1,560	344	318	6	4,718	38,471
80-84	18,421	904	168	225	4	4,811	24,533
85 and Over	16,634	636	108	278	7	8,140	25,803
Total	172,640	10,560	2,554	2,066	96	28,408	216,324

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries - by Age and Retirement Type

State Miscellaneous – Annual Amounts Including PPPA Payments – As of June 30, 2024

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	\$0	\$2,853	\$0	\$111,123	\$190,189	\$2,301,829	\$2,605,994
30-34	0	74,426	3,038	0	194	2,071,785	2,149,443
35-39	0	310,551	5,942	0	0	2,759,976	3,076,469
40-44	0	1,044,141	51,589	223,130	134,904	3,710,571	5,164,334
45-49	20,712	2,889,893	57,616	760,496	125,367	6,280,506	10,134,590
50-54	19,559,731	8,074,343	428,427	2,272,008	64,082	8,909,609	39,308,199
55-59	299,059,397	15,503,692	1,522,856	4,376,828	60,272	14,959,036	335,482,080
60-64	898,973,705	28,666,496	2,470,874	7,713,953	266,667	31,681,451	969,773,146
65-69	1,454,753,820	40,797,032	2,890,840	10,740,609	185,531	60,415,060	1,569,782,892
70-74	1,545,815,053	40,922,285	2,369,942	11,200,688	174,988	107,599,654	1,708,082,610
75-79	1,280,269,636	30,579,797	1,949,354	10,332,962	2,483	144,371,176	1,467,505,408
80-84	754,469,738	18,674,718	1,099,105	7,422,850	6,021	158,907,111	940,579,543
85 and Over	643,976,402	11,684,969	661,609	9,132,132	14,627	279,778,124	945,247,864
Total	\$6,896,898,195	\$199,225,196	\$13,511,190	\$64,286,779	\$1,225,325	\$823,745,888	\$7,998,892,573

Appendix C – Participant Data

Retired Members and Beneficiaries (continued)

Number of Retirees and Beneficiaries - by Years Retired and Retirement Type

State Miscellaneous – As of June 30, 2024

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Years	40,763	966	380	359	22	9,658	52,148
5 - 9	38,711	1,449	305	317	12	6,796	47,590
10 - 14	34,446	1,631	315	345	8	4,588	41,333
15 - 19	25,955	1,297	298	303	10	3,032	30,895
20 - 24	17,872	1,830	413	263	9	1,974	22,361
25 - 29	8,395	1,778	319	195	10	1,196	11,893
30 and over	6,498	1,609	524	284	25	1,164	10,104
Total	172,640	10,560	2,554	2,066	96	28,408	216,324

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries - by Years Retired and Retirement Type

State Miscellaneous – Annual Amounts Including PPPA Payments – As of June 30, 2024

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Years	\$1,746,816,640	\$17,481,269	\$1,871,234	\$11,695,061	\$576,438	\$306,251,999	\$2,084,692,641
5 - 9	1,552,918,301	25,892,017	1,846,453	9,348,770	211,491	203,640,279	1,793,857,312
10 - 14	1,390,192,445	30,570,833	2,223,776	10,918,028	121,312	132,322,094	1,566,348,489
15 - 19	1,056,530,520	26,022,549	2,052,064	9,680,655	166,572	81,818,988	1,176,271,349
20 - 24	731,645,066	36,946,146	2,850,179	8,374,323	105,970	50,334,556	830,256,239
25 - 29	256,584,211	35,860,108	1,564,176	6,321,983	3,003	27,742,110	328,075,592
30 and over	162,211,010	26,452,274	1,103,307	7,947,959	40,539	21,635,862	219,390,951
Total	\$6,896,898,195	\$199,225,196	\$13,511,190	\$64,286,779	\$1,225,325	\$823,745,888	\$7,998,892,573

Appendix C – Participant Data

Retired Members and Beneficiaries (continued)

Number of Retirees and Beneficiaries - by Age and Retirement Type

State Industrial – As of June 30, 2024

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	0	0	0	17	17
30-34	0	1	2	0	0	12	15
35-39	0	9	3	0	0	26	38
40-44	0	11	12	0	0	29	52
45-49	0	38	14	3	0	34	89
50-54	236	95	43	10	0	44	428
55-59	1,359	181	74	10	1	65	1,690
60-64	2,624	259	111	19	1	118	3,132
65-69	3,443	298	109	28	1	180	4,059
70-74	3,141	263	115	17	1	238	3,775
75-79	2,232	169	65	15	1	257	2,739
80-84	1,041	85	29	12	1	203	1,371
85 and Over	733	44	20	9	2	289	1,097
Total	14,809	1,453	597	123	8	1,512	18,502

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries - by Age and Retirement Type

State Industrial – Annual Amounts Including PPPA Payments – As of June 30, 2024

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	\$0	\$0	\$0	\$0	\$0	\$87,985	\$87,985
30-34	0	6,656	434	0	0	95,070	102,160
35-39	0	103,116	1,005	0	0	114,391	218,512
40-44	0	88,425	65,631	0	0	202,502	356,559
45-49	0	432,526	169,877	67,084	0	230,024	899,512
50-54	2,110,776	1,037,227	225,733	89,912	0	548,931	4,012,580
55-59	23,229,581	2,369,102	647,771	88,034	6,678	523,018	26,864,185
60-64	48,437,495	3,096,369	842,035	242,107	1,340	725,205	53,344,550
65-69	59,644,446	3,350,173	1,075,698	349,459	513	1,765,582	66,185,871
70-74	50,800,255	2,905,230	827,475	132,480	78	2,598,094	57,263,613
75-79	37,768,195	1,947,420	519,729	160,789	23,974	3,409,263	43,829,369
80-84	18,309,152	1,063,366	236,598	193,296	1,762	2,498,402	22,302,576
85 and Over	13,268,130	620,012	193,319	345,897	66,964	5,304,803	19,799,126
Total	\$253,568,031	\$17,019,623	\$4,805,304	\$1,669,059	\$101,309	\$18,103,271	\$295,266,598

Appendix C – Participant Data

Retired Members and Beneficiaries (continued)

Number of Retirees and Beneficiaries - by Years Retired and Retirement Type

State Industrial – As of June 30, 2024

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Years	4,108	183	101	29	0	558	4,979
5 - 9	3,647	275	99	26	2	390	4,439
10 - 14	3,246	294	103	20	1	233	3,897
15 - 19	2,015	168	76	18	1	157	2,435
20 - 24	1,133	274	112	13	0	80	1,612
25 - 29	431	159	49	10	0	60	709
30 and over	229	100	57	7	4	34	431
Total	14,809	1,453	597	123	8	1,512	18,502

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries - by Years Retired and Retirement Type

State Industrial – Annual Amounts Including PPPA Payments – As of June 30, 2024

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Years	\$80,464,843	\$2,763,004	\$1,041,967	\$348,165	\$0	\$7,381,660	\$91,999,639
5 - 9	60,931,232	3,154,328	682,941	371,497	7,191	4,778,005	69,925,195
10 - 14	54,117,037	3,319,305	1,010,139	218,693	78	2,523,063	61,188,315
15 - 19	32,561,790	2,029,718	673,155	412,401	1,340	1,737,025	37,415,429
20 - 24	17,923,421	3,154,097	825,883	162,628	0	852,152	22,918,182
25 - 29	4,694,318	1,625,014	187,937	73,717	0	510,703	7,091,690
30 and over	2,875,390	974,157	383,281	81,958	92,700	320,663	4,728,149
Total	\$253,568,031	\$17,019,623	\$4,805,304	\$1,669,059	\$101,309	\$18,103,271	\$295,266,598

Appendix C – Participant Data

Retired Members and Beneficiaries (continued)

Number of Retirees and Beneficiaries - by Age and Retirement Type

State Safety – As of June 30, 2024

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	3	2	0	48	53
30-34	0	0	14	0	0	17	31
35-39	0	4	70	2	0	29	105
40-44	0	12	122	1	4	43	182
45-49	0	43	184	9	1	56	293
50-54	378	56	311	10	3	83	841
55-59	1,748	106	486	39	6	133	2,518
60-64	3,487	128	741	44	10	255	4,665
65-69	5,182	178	901	67	13	483	6,824
70-74	5,043	168	899	74	17	633	6,834
75-79	3,675	115	675	40	12	698	5,215
80-84	1,714	52	304	25	8	626	2,729
85 and Over	981	20	170	24	15	688	1,898
Total	22,208	882	4,880	337	89	3,792	32,188

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries - by Age and Retirement Type

State Safety – Annual Amounts Including PPPA Payments – As of June 30, 2024

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	\$0	\$0	\$108,332	\$9,454	\$0	\$451,346	\$569,133
30-34	0	0	391,773	0	0	151,409	543,183
35-39	0	49,474	2,220,529	121,434	0	324,892	2,716,330
40-44	0	157,493	4,205,287	21,085	134,833	498,877	5,017,575
45-49	0	872,841	6,693,494	259,865	63,151	752,816	8,642,168
50-54	6,589,324	959,292	11,601,667	351,117	102,930	1,251,541	20,855,872
55-59	53,132,427	1,807,460	17,911,309	1,319,268	257,395	2,188,855	76,616,714
60-64	103,863,529	2,176,109	26,229,073	1,083,278	613,025	4,738,470	138,703,484
65-69	151,682,321	2,939,260	31,240,704	1,438,258	364,030	10,075,973	197,740,547
70-74	151,449,392	2,583,774	30,695,767	1,531,491	620,466	13,493,756	200,374,646
75-79	105,085,089	1,965,261	21,460,469	852,372	383,533	15,492,295	145,239,019
80-84	45,143,707	876,079	10,376,814	489,712	270,891	13,504,519	70,661,721
85 and Over	23,631,344	559,764	5,726,743	542,092	591,862	13,612,592	44,664,396
Total	\$640,577,133	\$14,946,809	\$168,861,962	\$8,019,426	\$3,402,117	\$76,537,341	\$912,344,787

Appendix C – Participant Data

Retired Members and Beneficiaries (continued)

Number of Retirees and Beneficiaries - by Years Retired and Retirement Type

State Safety – As of June 30, 2024

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Years	6,366	193	968	73	15	1,447	9,062
5 - 9	5,426	217	952	67	5	946	7,613
10 - 14	5,060	185	846	52	5	638	6,786
15 - 19	3,084	84	560	60	7	356	4,151
20 - 24	1,565	96	588	46	14	195	2,504
25 - 29	479	66	297	23	6	115	986
30 and over	228	41	669	16	37	95	1,086
Total	22,208	882	4,880	337	89	3,792	32,188

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries - by Years Retired and Retirement Type

State Safety – Annual Amounts Including PPPA Payments – As of June 30, 2024

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Years	\$218,010,284	\$4,388,673	\$39,299,087	\$2,461,495	\$725,014	\$31,692,206	\$296,576,758
5 - 9	163,975,340	4,392,047	37,331,424	1,680,399	195,989	20,194,856	227,770,055
10 - 14	149,396,646	3,323,257	33,035,710	1,292,632	433,357	12,004,827	199,486,429
15 - 19	70,791,548	1,049,702	17,928,783	1,182,311	268,171	6,267,849	97,488,364
20 - 24	28,930,731	949,824	16,974,921	717,846	406,040	3,149,180	51,128,541
25 - 29	6,133,418	605,135	7,834,116	389,206	238,037	1,527,888	16,727,800
30 and over	3,339,166	238,170	16,457,922	295,538	1,135,509	1,700,535	23,166,839
Total	\$640,577,133	\$14,946,809	\$168,861,962	\$8,019,426	\$3,402,117	\$76,537,341	\$912,344,787

Appendix C – Participant Data

Retired Members and Beneficiaries (continued)

Number of Retirees and Beneficiaries - by Age and Retirement Type

State Peace Officers and Firefighters – As of June 30, 2024

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	6	1	10	61	78
30-34	0	1	61	0	1	30	93
35-39	0	7	130	2	9	44	192
40-44	0	18	355	4	15	49	441
45-49	0	31	657	10	20	74	792
50-54	3,427	55	1,321	23	24	116	4,966
55-59	5,730	67	1,814	51	29	218	7,909
60-64	7,532	112	2,264	51	32	431	10,422
65-69	6,266	112	1,813	54	28	668	8,941
70-74	5,070	69	1,440	46	25	883	7,533
75-79	3,611	60	1,003	38	16	820	5,548
80-84	1,611	15	411	19	11	664	2,731
85 and Over	819	11	160	11	7	573	1,581
Total	34,066	558	11,435	310	227	4,631	51,227

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries - by Age and Retirement Type

State Peace Officers and Firefighters – Annual Amounts Including PPPA Payments – As of June 30, 2024

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	\$0	\$0	\$233,317	\$30,220	\$318,557	\$765,515	\$1,347,609
30-34	0	12,398	2,361,304	0	54,474	533,729	2,961,905
35-39	0	85,790	5,229,762	80,064	394,262	806,921	6,596,799
40-44	0	394,561	14,948,396	165,868	807,831	1,290,317	17,606,974
45-49	0	808,050	28,616,734	663,942	1,017,743	2,274,076	33,380,545
50-54	267,093,921	1,970,275	70,854,951	1,218,883	1,357,514	4,466,353	346,961,897
55-59	413,101,119	1,968,697	97,875,801	3,071,735	1,470,757	9,670,176	527,158,286
60-64	537,509,030	3,171,662	116,896,548	2,890,219	1,549,350	20,036,880	682,053,688
65-69	445,170,808	3,668,770	90,443,514	2,778,932	1,339,063	32,513,560	575,914,647
70-74	347,680,292	2,267,009	74,339,529	2,321,816	1,161,794	42,452,446	470,222,886
75-79	234,130,623	1,893,699	51,641,509	1,779,677	636,433	41,301,207	331,383,148
80-84	92,564,270	572,842	20,601,229	1,013,667	428,015	30,362,492	145,542,515
85 and Over	42,372,891	384,418	7,714,834	419,577	280,287	25,041,327	76,213,335
Total	\$2,379,622,955	\$17,198,172	\$581,757,427	\$16,434,601	\$10,816,078	\$211,515,001	\$3,217,344,234

Appendix C – Participant Data

Retired Members and Beneficiaries (continued)

Number of Retirees and Beneficiaries - by Years Retired and Retirement Type

State Peace Officers and Firefighters – As of June 30, 2024

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Years	9,076	97	2,076	67	54	1,770	13,140
5 - 9	7,580	99	1,886	52	35	1,216	10,868
10 - 14	8,084	105	1,831	46	19	753	10,838
15 - 19	5,184	71	1,300	50	48	439	7,092
20 - 24	2,710	86	1,887	49	28	243	5,003
25 - 29	885	69	1,144	27	18	125	2,268
30 and over	547	31	1,311	19	25	85	2,018
Total	34,066	558	11,435	310	227	4,631	51,227

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries - by Years Retired and Retirement Type

State Peace Officers and Firefighters – Annual Amounts Including PPPA Payments – As of June 30, 2024

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Years	\$648,308,471	\$3,935,749	\$124,826,884	\$3,926,235	\$2,737,284	\$87,585,747	\$871,320,370
5 - 9	512,867,750	3,562,350	104,498,676	3,013,919	1,662,150	57,109,926	682,714,771
10 - 14	578,062,321	3,256,324	98,838,462	2,522,918	1,101,531	33,349,170	717,130,726
15 - 19	395,298,640	2,374,801	74,428,293	2,768,273	2,518,867	17,758,488	495,147,361
20 - 24	174,145,434	2,077,801	84,867,780	2,165,953	1,247,087	8,868,834	273,372,890
25 - 29	42,167,168	1,499,250	46,356,928	1,224,372	693,245	4,194,172	96,135,134
30 and over	28,773,170	491,896	47,940,405	812,932	855,915	2,648,663	81,522,981
Total	\$2,379,622,955	\$17,198,172	\$581,757,427	\$16,434,601	\$10,816,078	\$211,515,001	\$3,217,344,234

Appendix C – Participant Data

Retired Members and Beneficiaries (continued)

Number of Retirees and Beneficiaries - by Age and Retirement Type

California Highway Patrol – As of June 30, 2024

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	0	0	8	9	17
30-34	0	0	8	0	2	2	12
35-39	0	1	37	0	5	2	45
40-44	0	5	53	0	10	12	80
45-49	0	1	104	0	8	13	126
50-54	790	1	264	5	14	16	1,090
55-59	1,038	3	332	4	20	45	1,442
60-64	1,040	2	393	4	22	82	1,543
65-69	855	8	434	6	7	125	1,435
70-74	510	4	361	7	8	213	1,103
75-79	452	3	556	5	13	343	1,372
80-84	405	3	519	5	10	366	1,308
85 and Over	213	3	319	2	14	393	944
Total	5,303	34	3,380	38	141	1,621	10,517

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries - by Age and Retirement Type

California Highway Patrol – Annual Amounts Including PPPA Payments – As of June 30, 2024

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	\$0	\$0	\$0	\$0	\$234,978	\$137,658	\$372,636
30-34	0	0	498,188	0	162,275	22,334	682,796
35-39	0	43,381	2,391,363	0	391,304	36,967	2,863,015
40-44	0	182,600	3,291,599	0	823,567	270,892	4,568,658
45-49	0	20,135	6,641,097	0	724,918	303,501	7,689,652
50-54	86,594,727	8,646	24,510,434	482,706	1,103,701	974,679	113,674,892
55-59	115,814,317	57,707	32,396,275	280,256	1,560,354	3,322,910	153,431,818
60-64	119,543,549	29,052	31,263,476	392,879	1,453,235	5,956,799	158,638,989
65-69	94,764,722	162,124	34,849,293	504,280	484,342	8,627,863	139,392,624
70-74	48,618,108	217,278	27,450,977	659,052	337,942	11,336,702	88,620,059
75-79	33,483,819	125,987	41,818,682	293,577	420,006	15,660,463	91,802,534
80-84	25,635,860	87,315	30,668,152	282,198	348,592	15,585,455	72,607,572
85 and Over	11,019,939	66,879	16,473,174	48,964	495,553	14,126,195	42,230,703
Total	\$535,475,040	\$1,001,103	\$252,252,709	\$2,943,911	\$8,540,766	\$76,362,419	\$876,575,948

Appendix C – Participant Data

Retired Members and Beneficiaries (continued)

Number of Retirees and Beneficiaries - by Years Retired and Retirement Type

California Highway Patrol – As of June 30, 2024

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Years	1,449	6	489	3	25	550	2,522
5 - 9	1,074	1	271	5	22	381	1,754
10 - 14	956	3	299	3	19	252	1,532
15 - 19	862	3	423	5	21	160	1,474
20 - 24	443	3	527	12	6	109	1,100
25 - 29	325	11	404	3	5	76	824
30 and over	194	7	967	7	43	93	1,311
Total	5,303	34	3,380	38	141	1,621	10,517

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Annual Allowance Amounts for Retirees and Beneficiaries - by Years Retired and Retirement Type

California Highway Patrol – Annual Amounts Including PPPA Payments – As of June 30, 2024

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Years	\$160,951,902	\$244,840	\$48,918,549	\$285,258	\$2,134,453	\$31,529,959	\$244,064,961
5 - 9	121,208,916	46,658	26,972,854	561,826	1,684,792	17,727,066	168,202,111
10 - 14	105,055,222	3,825	29,768,039	224,816	1,271,344	12,387,550	148,710,796
15 - 19	87,554,370	306,481	41,809,123	358,223	1,451,511	6,231,009	137,710,719
20 - 24	32,149,687	66,572	42,795,995	1,051,184	288,069	4,056,044	80,407,552
25 - 29	19,126,315	265,306	24,394,718	173,906	224,511	2,027,056	46,211,812
30 and over	9,428,628	67,421	37,593,431	288,698	1,486,085	2,403,734	51,267,997
Total	\$535,475,040	\$1,001,103	\$252,252,709	\$2,943,911	\$8,540,766	\$76,362,419	\$876,575,948

Appendix C – Participant Data

Retired Members and Beneficiaries (continued)

Number Counts and Benefits - by Year of Retirement – As of June 30, 2024

State Miscellaneous

Year Retired	Total Retirement	Total Benefits	Average Benefits
2024 ¹	3,355	\$116,060,749	\$34,593
2023	9,951	402,275,825	40,426
2022	10,894	436,305,002	40,050
2021	10,252	387,927,126	37,839
2020	11,068	454,972,938	41,107
2019	10,228	404,436,237	39,542
2018	10,127	390,267,652	38,537
2017	9,496	369,713,657	38,934
2016	9,156	337,524,951	36,864
2015	9,092	334,002,719	36,736
2014	9,020	333,230,097	36,943
2013	7,779	271,624,701	34,918
2012	8,426	313,961,903	37,261
2011	8,283	304,760,730	36,794
2010	8,796	355,508,821	40,417
2009	7,479	316,547,714	42,325
2008	6,350	258,768,161	40,751
2007	5,950	225,450,868	37,891
2006	5,611	194,655,981	34,692
2005	6,182	228,844,932	37,018
2004	6,912	270,501,994	39,135
2003	4,744	166,916,394	35,185
2002	4,493	163,779,514	36,452
2001	4,380	175,161,842	39,991
2000	5,296	212,534,370	40,131
1999	2,149	52,371,409	24,370
1998	2,815	77,758,386	27,623
1997	2,607	71,582,591	27,458
1996	2,282	64,145,247	28,109
1995 and Earlier	13,151	307,300,062	23,367
Total	216,324	\$7,998,892,573	\$36,976

State Industrial

Year Retired	Total Retirement	Total Benefits	Average Benefits
2024 ¹	300	\$5,599,557	\$18,665
2023	931	18,272,852	19,627
2022	1,081	18,933,101	17,514
2021	973	16,860,739	17,329
2020	1,052	20,430,263	19,420
2019	997	17,058,626	17,110
2018	910	14,943,968	16,422
2017	864	13,951,996	16,148
2016	894	14,239,897	15,928
2015	867	13,250,583	15,283
2014	814	11,741,367	14,424
2013	724	10,528,598	14,542
2012	825	13,692,345	16,597
2011	741	11,224,730	15,148
2010	840	13,915,228	16,566
2009	703	11,121,658	15,820
2008	546	8,503,413	15,574
2007	438	6,810,201	15,548
2006	468	6,732,956	14,387
2005	444	7,073,866	15,932
2004	526	8,089,698	15,380
2003	348	4,531,118	13,020
2002	339	4,690,287	13,836
2001	307	4,744,006	15,453
2000	376	5,966,136	15,867
1999	134	1,340,224	10,002
1998	179	1,772,213	9,901
1997	145	1,435,713	9,901
1996	126	1,187,200	9,422
1995 and Earlier	610	6,624,062	10,859
Total	18,502	\$295,266,601	\$15,959

¹ The numbers for 2024 represent the first 6 months of the calendar year only.

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Appendix C – Participant Data

Retired Members and Beneficiaries (continued)

Number Counts and Benefits - by Year of Retirement – As of June 30, 2024 (continued)

State Safety

Year Retired	Total Retirement	Total Benefits	Average Benefits
2024 ¹	609	\$18,968,820	\$31,147
2023	1,755	57,176,718	32,579
2022	1,927	64,582,131	33,514
2021	1,833	58,727,345	32,039
2020	1,961	64,238,661	32,758
2019	1,627	50,976,249	31,331
2018	1,630	50,840,429	31,190
2017	1,473	44,929,594	30,502
2016	1,492	45,389,129	30,422
2015	1,440	41,713,168	28,967
2014	1,436	39,615,371	27,587
2013	1,323	37,844,826	28,605
2012	1,437	40,436,579	28,140
2011	1,326	38,420,600	28,975
2010	1,427	46,273,437	32,427
2009	1,155	33,953,600	29,397
2008	886	24,423,547	27,566
2007	818	19,512,111	23,853
2006	759	15,125,744	19,929
2005	801	17,181,427	21,450
2004	783	17,184,564	21,947
2003	567	11,479,789	20,247
2002	511	10,291,180	20,139
2001	494	10,347,891	20,947
2000	525	10,732,649	20,443
1999	252	4,571,624	18,141
1998	266	4,077,123	15,328
1997	206	3,840,406	18,643
1996	162	2,634,814	16,264
1995 and Earlier	1,307	26,855,262	20,547
Total	32,188	\$912,344,788	\$28,344

State Peace Officers and Firefighters

Year Retired	Total Retirement	Total Benefits	Average Benefits
2024 ¹	848	\$52,809,711	\$62,276
2023	2,466	166,739,019	67,615
2022	2,804	189,204,043	67,476
2021	2,473	151,756,673	61,365
2020	3,212	223,868,465	69,698
2019	2,163	133,967,395	61,936
2018	2,256	143,860,328	63,768
2017	2,111	132,672,269	62,848
2016	2,019	122,923,406	60,883
2015	2,223	143,368,882	64,493
2014	2,165	135,013,213	62,362
2013	2,074	127,137,349	61,301
2012	2,350	155,369,317	66,115
2011	2,050	131,421,212	64,108
2010	2,239	154,144,792	68,845
2009	1,980	147,555,526	74,523
2008	1,401	104,255,612	74,415
2007	1,571	117,633,280	74,878
2006	1,758	125,531,548	71,406
2005	1,080	65,800,451	60,926
2004	1,240	70,019,966	56,468
2003	989	53,934,060	54,534
2002	1,081	60,534,620	55,999
2001	961	52,001,799	54,112
2000	1,191	69,478,329	58,336
1999	469	17,761,513	37,871
1998	521	20,026,090	38,438
1997	507	21,640,315	42,683
1996	434	20,010,388	46,107
1995 and Earlier	2,591	106,904,662	41,260
Total	51,227	\$3,217,344,233	\$62,806

¹ The numbers for 2024 represent the first 6 months of the calendar year only.

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Appendix C – Participant Data

Retired Members and Beneficiaries (continued)

Number Counts and Benefits - by Year of Retirement – As of June 30, 2024 (continued)

California Highway Patrol

Year Retired	Total Retirement	Total Benefits	Average Benefits
2024 ¹	169	\$14,354,132	\$84,936
2023	512	51,235,480	100,069
2022	583	56,287,787	96,549
2021	476	42,919,611	90,167
2020	471	45,858,712	97,365
2019	427	41,880,684	98,081
2018	347	31,362,754	90,383
2017	389	40,050,879	102,959
2016	331	30,807,017	93,073
2015	378	36,837,780	97,454
2014	278	26,728,472	96,146
2013	284	25,985,694	91,499
2012	337	33,542,784	99,533
2011	344	34,610,096	100,611
2010	353	36,157,377	102,429
2009	326	34,336,740	105,327
2008	247	24,712,405	100,050
2007	252	22,883,707	90,808
2006	282	24,351,903	86,354
2005	309	27,700,927	89,647
2004	233	18,580,511	79,745
2003	170	11,553,897	67,964
2002	242	18,262,767	75,466
2001	247	20,081,168	81,300
2000	342	25,099,227	73,390
1999	128	6,865,030	53,633
1998	157	8,531,813	54,343
1997	172	9,487,915	55,162
1996	202	12,484,052	61,802
1995 and Earlier	1,529	63,024,628	41,220
Total	10,517	\$876,575,949	\$83,348

¹ The numbers for 2024 represent the first 6 months of the calendar year only.

Counts of members do not include alternate payees receiving benefits while the member is still working. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

Appendix D – Status of PEPRA Transition

The California Public Employees' Pension Reform Act of 2013 (PEPRA), which took effect in January 2013, changed CalPERS retirement benefits and placed compensation limits on new members joining CalPERS on or after January 1, 2013. One of the objectives of PEPRA was to improve the ability of employers to manage the costs of retirement benefits for their members. While such changes can reduce future benefit costs in a meaningful way, the full impact on employer contributions will not occur until all active members are subject to the rules and provisions of PEPRA. The tables below illustrate the status of this transition as of June 30, 2024.

State Miscellaneous – As of June 30, 2024

	Classic	PEPRA	PEPRA Percentage
Active Members			
Count	76,340	113,184	59.7%
Average Attained Age	53.19	41.13	
Average Entry Age	32.80	36.40	
Average Years of Credited Service	19.09	4.55	
Average Annual Covered Payroll	\$104,486	\$76,748	
Annual Covered Payroll	\$7,976,431,649	\$8,686,674,792	52.1%
Present Value of Future Payroll	\$58,150,747,629	\$102,856,312,297	63.9%
Transferred Members			
Count	15,859	11,517	42.1%
Separated Members			
Count	54,741	28,219	34.0%
Retirees and Beneficiaries Receiving Payments			
Count	213,471	2,853	1.3%
Average Annual Benefits	\$37,346	\$9,299	
Total Annual Benefits	\$7,972,363,123	\$26,529,451	0.3%
Accrued Liability			
Active Members	\$44,200,704,663	\$8,548,491,928	16.2%
Transferred Members	2,347,441,074	268,744,704	10.3%
Separated Members	2,293,224,432	441,649,495	16.1%
Retired Members and Beneficiaries	89,277,116,737	356,832,572	0.4%
Total	\$138,118,486,906	\$9,615,718,699	6.5%

Appendix D – Status of PEPRA Transition

State Industrial – As of June 30, 2024

	Classic	PEPRA	PEPRA Percentage
Active Members			
Count	4,824	6,983	59.1%
Average Attained Age	51.17	39.65	
Average Entry Age	34.88	35.40	
Average Years of Credited Service	15.33	4.15	
Average Annual Covered Payroll	\$88,477	\$66,528	
Annual Covered Payroll	\$426,813,584	\$464,567,363	52.1%
Present Value of Future Payroll	\$3,107,069,698	\$5,778,416,301	65.0%
Transferred Members			
Count	5,256	2,915	35.7%
Separated Members			
Count	2,824	1,952	40.9%
Retirees and Beneficiaries Receiving Payments			
Count	18,288	214	1.2%
Average Annual Benefits	\$16,064	\$6,975	
Total Annual Benefits	\$293,774,042	\$1,492,556	0.5%
Accrued Liability			
Active Members	\$1,767,729,696	\$417,546,478	19.1%
Transferred Members	625,584,938	81,234,773	11.5%
Separated Members	90,671,714	18,890,434	17.2%
Retired Members and Beneficiaries	3,547,386,150	19,763,134	0.6%
Total	\$6,031,372,498	\$537,434,819	8.2%

Appendix D – Status of PEPRA Transition

State Safety – As of June 30, 2024

	Classic	PEPRA	PEPRA Percentage
Active Members			
Count	11,122	16,746	60.1%
Average Attained Age	52.78	42.99	
Average Entry Age	37.81	38.01	
Average Years of Credited Service	14.29	4.88	
Average Annual Covered Payroll	\$110,900	\$87,637	
Annual Covered Payroll	\$1,233,432,534	\$1,467,565,276	54.3%
Present Value of Future Payroll	\$7,941,761,127	\$15,145,707,012	65.6%
Transferred Members			
Count	3,691	2,681	42.1%
Separated Members			
Count	4,976	6,010	54.7%
Retirees and Beneficiaries Receiving Payments			
Count	31,401	787	2.4%
Average Annual Benefits	\$28,524	\$21,176	
Total Annual Benefits	\$895,677,937	\$16,665,838	1.8%
Accrued Liability			
Active Members	\$5,567,092,638	\$1,665,984,333	23.0%
Transferred Members	545,661,937	98,006,277	15.2%
Separated Members	343,137,719	139,844,179	29.0%
Retired Members and Beneficiaries	11,057,088,409	251,850,181	2.2%
Total	\$17,512,980,703	\$2,155,684,970	11.0%

Appendix D – Status of PEPRA Transition

State Peace Officers and Firefighters – As of June 30, 2024

	Classic	PEPRA	PEPRA Percentage
Active Members			
Count	18,435	22,663	55.1%
Average Attained Age	47.99	34.05	
Average Entry Age	29.01	29.02	
Average Years of Credited Service	18.34	4.87	
Average Annual Covered Payroll	\$122,397	\$87,700	
Annual Covered Payroll	\$2,256,380,466	\$1,987,543,403	46.8%
Present Value of Future Payroll	\$13,559,047,980	\$27,979,447,082	67.4%
Transferred Members			
Count	3,633	2,287	38.6%
Separated Members			
Count	5,529	4,516	45.0%
Retirees and Beneficiaries Receiving Payments			
Count	50,854	373	0.7%
Average Annual Benefits	\$63,036	\$31,348	
Total Annual Benefits	\$3,205,651,436	\$11,692,798	0.4%
Accrued Liability			
Active Members	\$18,165,554,765	\$3,046,411,837	14.4%
Transferred Members	535,354,212	87,730,968	14.1%
Separated Members	450,409,128	78,085,979	14.8%
Retired Members and Beneficiaries	44,485,765,312	208,678,665	0.5%
Total	\$63,637,083,417	\$3,420,907,449	5.1%

Appendix D – Status of PEPRA Transition

California Highway Patrol – As of June 30, 2024

	Classic	PEPRA	PEPRA Percentage
Active Members			
Count	3,952	2,603	39.7%
Average Attained Age	46.16	32.59	
Average Entry Age	27.25	27.86	
Average Years of Credited Service	18.94	4.76	
Average Annual Covered Payroll	\$167,402	\$135,531	
Annual Covered Payroll	\$661,572,805	\$352,787,998	34.8%
Present Value of Future Payroll	\$4,480,914,171	\$5,504,263,411	55.1%
Transferred Members			
Count	182	56	23.5%
Separated Members			
Count	454	152	25.1%
Retirees and Beneficiaries Receiving Payments			
Count	10,495	22	0.2%
Average Annual Benefits	\$83,393	\$61,941	
Total Annual Benefits	\$875,204,382	\$1,362,701	0.2%
Accrued Liability			
Active Members	\$5,795,301,555	\$464,366,378	7.4%
Transferred Members	50,047,880	3,901,062	7.2%
Separated Members	122,672,364	6,113,887	4.7%
Retired Members and Beneficiaries	12,050,688,326	26,329,179	0.2%
Total	\$18,018,710,125	\$500,710,506	2.7%

Appendix E – Supplemental Pension Payments

The State makes contributions in excess of the actuarially required contribution either through a higher contribution rate, as shown in Additional Contributions, or through lump sum payments referred to as Supplemental Pension Payments (SPP). An SPP serves to reduce the UAL, reduce or stabilize future contributions, or a combination of both, depending on the application.

Supplemental Pension Payments

The State has made the following SPP from various sources and with different applications.

Fiscal Year	Legislation	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Total
2017-18	SB 84	\$3,600,000,000	\$100,000,000	\$300,000,000	\$1,500,000,000	\$500,000,000	\$6,000,000,000
2018-19	SB 90, 111	848,057,000 ¹	82,930,000 ¹	184,427,000 ¹	1,384,586,000 ¹	-	2,500,000,000
2019-20	AB 118	-	-	-	-	25,000,000 ²	25,000,000
2020-21	AB 118	-	-	-	-	25,000,000 ²	25,000,000
2021-22	AB 118	-	-	-	-	25,000,000	25,000,000
2022-23	AB 118	-	-	-	-	25,000,000	25,000,000

¹ The SB 90, 111 payment associated with fiscal year 2018-19 was received by CalPERS in July 2019.

² The AB 118 payments associated with FY 2019-20 and 2020-21 were received by CalPERS in August of 2020 and 2021, respectively.

Supplemental Pension Payments Pursuant to Proposition 2

In 2014, California voters passed Proposition 2, which amended the State Constitution to require certain funds be appropriated to repay specific State debts, including unfunded liabilities for state-level pension plans. The SPP shown below were made pursuant to Proposition 2.

Fiscal Year	Legislation	State Miscellaneous	State Industrial	State Safety	State Peace Officers and Firefighters	California Highway Patrol	Total
2020-21	AB 84	-	-	-	-	\$243,000,000	\$243,000,000
2021-22	AB 138	\$865,017,000	\$50,499,000	\$112,346,000	\$853,138,000	-	1,881,000,000
2022-23	SB 191	1,333,958,000	81,612,000	171,392,000	1,338,038,000	-	2,925,000,000
2023-24	AB 130	769,620,000	44,500,000	99,924,000	742,956,000	-	1,657,000,000
2024-25*	AB 171	180,098,000	9,125,000	21,167,000	126,610,000	-	337,000,000

* The payments received in FY 2024-25 do not affect the funded status as of June 30, 2024 and are not reflected in this valuation report.

The Constitution does not allow Proposition 2 payments to supplant funding that would have otherwise been used to pay for the unfunded liability in the fiscal year the payment was appropriated or the subsequent fiscal year, which is why the 2024-25 payments did not adjust the 2025-26 required unfunded accrued liability contributions. The supplemental payments, however, do reduce the actuarially required contribution rates in FY 2026-27 and later. The objective of Proposition 2 is to generate long-term savings, and to pay off the unfunded liability sooner than if the payments had not been made. To accomplish this, the state has, in some years, set contribution rates above the actuarially determined rate and below what the actuarially determined rate would have been had the Proposition 2 payments not been made. No such adjustments are expected in FY 2025-26.

Appendix F – Glossary of Actuarial Terms

Accrued Liability (*Actuarial Accrued Liability*): The portion of the Present Value of Benefits allocated to prior years. Based on CalPERS funding policies, the accrued liability is the target level of assets on any valuation date.

Actuarial Assumptions: Assumptions made about certain events that will affect pension costs. Assumptions generally can be broken down into two categories: demographic and economic. Demographic assumptions include such things as mortality, disability, and retirement rates. Economic assumptions include discount rate, salary growth and inflation.

Actuarial Methods: Procedures employed by actuaries to achieve certain funding goals of a pension plan. Actuarial methods include cost method, amortization policy and asset valuation method.

Actuarial Valuation: The determination as of a valuation date of the Normal Cost, Accrued Liability, and related actuarial present values for a pension plan. These valuations are performed annually or when an employer is contemplating a change to their plan provisions.

Amortization Bases: Separate payment schedules for different portions of the Unfunded Accrued Liability. The total Unfunded Accrued Liability of a rate plan can be segregated by cause. The impact of such individual causes on the UAL are quantified at the time of their occurrence, resulting in new amortization bases. Each base is separately amortized and paid for over a specific period of time. Generally, in an actuarial valuation, the separate bases consist of changes in UAL due to contract amendments, actuarial assumption changes, method changes, and/or gains and losses.

Amortization Period: The number of years required to pay off an Amortization Base.

Classic Member (under PEPPRA): A classic member is a member who joined CalPERS prior to January 1, 2013, and who is not defined as a new member under PEPPRA. (See definition of new member below.)

Discount Rate: This is the rate used to discount the expected future benefit payments to the valuation date to determine the Projected Value of Benefits. The discount rate is based on the assumed long-term rate of return on plan assets, net of investment and administrative expenses. This rate is called the “actuarial interest rate” in Section 20014 of the California Public Employees’ Retirement Law.

Entry Age: The earliest age at which a plan member begins to accrue benefits under a defined benefit pension plan. In most cases, this is the age of the member on their date of hire.

Appendix F – Glossary of Actuarial Terms

Glossary of Actuarial Terms (continued)

Entry Age Actuarial Cost Method: An actuarial cost method designed to fund a member's total plan benefit in a level manner over the course of his or her career. This method yields a total normal cost rate, expressed as a percentage of payroll, which is designed to remain level throughout the member's career.

Fresh Start: A Fresh Start is when multiple Amortization Bases are combined into a single base and amortized over a new Amortization Period.

Funded Ratio: Defined as Market Value of Assets divided by Accrued Liability. It is a measure of how well funded a rate plan is. A ratio greater than 100% means the rate plan has more assets than the target established by CalPERS funding policies on the valuation date and the employer need only contribute the Normal Cost. A ratio less than 100% means assets are less than the funding target and contributions in addition to Normal Cost are required.

GASB 68: Statement No. 68 of the Governmental Accounting Standards Board, the accounting standard governing a state or local governmental employer's accounting and financial reporting for pensions.

New Member (under PEPRA): A new member is an individual who becomes a member of a public retirement system in the State of California for the first time on or after January 1, 2013, was not a member of another public retirement system prior to that date and is not subject to reciprocity with another public retirement system.

Normal Cost: The portion of the Present Value of Benefits allocated to the upcoming fiscal year for active employees. The normal cost plus the required amortization of the UAL, if any, make up the required contributions.

Pension Actuary: A business professional proficient in mathematics and statistics who performs the calculations necessary to properly fund a pension plan and allow the plan sponsor to disclose its liabilities. A pension actuary must satisfy the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States regarding pensions.

PEPRA: The California Public Employees' Pension Reform Act of 2013.

Present Value of Benefits (PVB): The total dollars needed as of the valuation date to fund all benefits earned in the past and expected to be earned in the future for *current* members.

Unfunded Accrued Liability (UAL): The Accrued Liability minus the Market Value of Assets. If the UAL for a rate plan is positive, the employer is required to make contributions in excess of the Normal Cost. A UAL that is negative is also called the surplus.

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California Public Employees' Retirement System
A Component Unit of the State of California